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5.0 OPEN SPACE ANALYSIS

5.1 INTRODUCTION

This supplemental analysis reviews changes to the project resulting from the addition of a 1.37-acre site at the intersection of 7th Street and Silvera Avenue to the proposed project. The proposed use of the 1.37 acre site is passive open space. This analysis will provide City decision makers with additional information regarding potential adverse environmental effects associated with the proposed changes to the project. The Recirculated EIR, including this section, is intended to be used together with DEIR 2005, which contains a detailed evaluation of reasonable alternatives to the proposed project.

Evaluation of Environmental Impacts

Potential environmental effects of the project are addressed for each of the following areas as they relate to the inclusion of the 1.37-acre off-site open space area at the intersection of 7th Street and Silvera Avenue:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Public Services and Utilities
- Transportation and Circulation

Chapter 3.0 of this partially recirculated EIR contains a description of the proposed project as revised. The Hazards and Hazardous Materials and Public Services and Utilities sections of DEIR 2005 have been revised and are being recirculated for public review as part of this document.

5.2 ANALYSIS OF PROJECT CHANGES

The following pages contain analyses of potential impacts of the proposed revised site plan for the East Long Beach Home Depot compared to potential impacts of the site plan analyzed in DEIR 2005.

Potential environmental effects of the project related to the inclusion of the 1.37-acre site at the intersection of 7th Street and Silvera Avenue are addressed below.

Existing Setting

The proposed open space site is currently vacant (with the exception of electrical and water equipment vaults and several wooden sheds), asphalt-paved, and surrounded by fencing with site access at the eastern and western ends. An asphalt berm is present along the southern boundary of the site. Four small, wooden sheds or "pump houses" are located on the southern portion of the site and they appear to contain equipment related to an underground water pipe traversing the site in an east-west direction. The equipment is active and operated and maintained by the County of Los Angeles Flood Control District. Electrical and water equipment vaults are also located throughout the southern portion of the site.

Kettering Elementary School borders the site to the south. Residential development is located to the north beyond 7th Street, and to the west beyond Silvera Avenue. A vacant parcel is located to the east beyond Channel View Park and the Los Cerritos Channel.

The site topography gently slopes toward the southeast, and during periods of precipitation surface water appears to occur as sheet flow across the site in a southeastern direction toward the adjacent Los Cerritos Channel. The asphalt berm appears to assist in directing rainwater away from Kettering Elementary.

Figures 5.1 provides pictures of the proposed open space site in its existing condition.

Project Change

In addition to on-site landscaping and open space, the proposed project also includes the landscaping of 1.37 acres of open space southeast of the intersection of East 7th Street and Silvera Avenue, adjacent to the Channel View Park. The proposed open space site is located approximately 0.5 mile south-southeast of the Home Depot project site at the intersection of Studebaker Road and Loynes Drive. The site is composed of 0.31 acre of Caltrans right-of-way, 0.43 acre of Los Angeles County Flood Control District easement, and 0.63 acre currently owned by The Home Depot.

The proposed project includes construction of a five-foot-wide decomposed granite walkway that will traverse the length of the proposed open space site and connect to the existing Channel View Park walkway/bike path. A 25-foot-wide County flood control easement will be maintained along the southern boundary of the site adjacent to Kettering Elementary School. Access to the easement area will be restricted and the area paved with asphalt concrete (AC**).** The water pipe that traverses the southern portion of the site and related equipment housed in on-site pump houses will continue to be maintained by the County of Los Angeles Flood Control District after project implementation. Pumps houses will be relocated to the area within the easement.

After conversion to landscaped open space, 0.63 acre of the 1.37-acre open space area will be deeded to the City of Long Beach for inclusion in its inventory of open space areas. The remaining 0.74 acre will remain under LA County Flood Control District and Caltrans ownership. Figure 3.10,






LSA

FIGURE 5.1

Home Depot East Long Beach

Existing Conditions of Proposed Open Space Site

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Open Space Conceptual Landscape Plan, shows the location of the various plant types included in the proposed project.

The project proposes nighttime security lighting along pathways similar to lighting provided along the existing bike path in Channel View Park. Pole lights will be designed with a reflector system to restrict light to the lower portion of the lighted area (i.e., project light down instead of into the night sky). Project lighting will be consistent with that of the Channel View Park, including light standards with an approximate maximum height of 24 feet and dawn-to-dusk security lighting. In addition, bollard lights are proposed at the open space entrance at the corner of 7th Street and Silvera Avenue. The bollards will feature low-level lighting to illuminate the entry path to the open space area.

Analysis of Project Change

This section provides analysis of potential impacts from implementation of the project changes as part of the proposed project. A field survey of the project site and the immediately surrounding area (areas within view of the site) was conducted to evaluate the existing setting and develop an informed assessment of the potential effects of the proposed project.

Aesthetics.

Effects on Scenic Vistas. Scenic vistas are defined as greater than one mile from a receptor and consist of horizon line views. As described, all areas surrounding the project site are developed for urban uses. Nearby uses include an elementary school, residential development, streets, and Channel View bike path and park.

The proposed project will substantially alter the visual character of the site by removing the existing fencing and existing, deteriorated asphalt. The proposed project incorporates extensive landscaping and a five-foot-wide decomposed granite walkway that will traverse the length of the proposed open space site. Although the project site will be visible to surrounding residential properties and passing motorists, the proposed project will blend into its surroundings when viewed from a significant distance and elevation. Therefore, the effect of the proposed project on any scenic vistas that may exist from a distant off-site area is not considered adverse, and no mitigation is necessary.

Effects on Scenic Resources. Channel View Park is located immediately to the east of the project site. As previously stated, other nearby uses include an elementary school and residential development. The project includes landscaping of the 1.37-acre site adjacent to Channel View Park and construction of a five-foot-wide walkway that will traverse the length of the site. The scenic quality of Channel View Park will not be impacted by the proposed changes to the site adjacent to 7th Street. Therefore, project impacts related to Channel View Park are considered to be less than significant, and no mitigation is required.

7th Street, located adjacent to the project site, is not a designated State scenic highway. There are no scenic rock outcroppings located within the project limits. Project impacts to scenic resources

in the vicinity of the project site are considered less than significant, and no mitigation is required.

Visual Character. The proposed project will substantially alter the existing visual character of the project site and increase the intensity of on-site activities. However, changes to a viewshed are not by definition adverse or significant. Landscaping of the 1.37-acre site southeast of the intersection of East 7th Street and Silvera Avenue will not increase the intensity of on-site activities, but it will alter the existing visual character of the area.

In accordance with the thresholds defined in DEIR 2005, there must be a substantial finding that the project degrades or damages a viewshed for an impact to be significant and adverse.

Visual impacts related to the landscaping of the 1.37-acre site include removal of existing, deteriorated asphalt and fencing and installation of a decomposed granite walkway and landscaping. The proposed landscape design includes turf and a variety of trees, shrubs, and groundcover. The project also includes new paving in the Flood Control District easement area for maintenance purposes. Figure 3.9, Open Space Conceptual Landscape Plan, shows the location of the various plant types included in the proposed project. The site runoff will be channeled through a constructed bio-swale to encourage water percolation and to direct flows away from Kettering Elementary.

The proposed project will replace a vacant, asphalt-paved site with landscaped open space. It provides benefits to views from the public rights-of-way because of landscaping improvements and improved accessibility to Channel View Park. Therefore, the nature of the proposed project revisions will have a less than significant impact on the aesthetic character of the surrounding area.

Light and Glare. The project proposes nighttime (dawn to dusk) security lighting along pathways similar to lighting provided along the existing bike path in Channel View Park. The type of lighting used would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Furthermore, pole lights will be designed with a reflector system to restrict light to the lower portion of the lighted area (i.e., project light down instead of into the night sky). Proposed lighting will be consistent with existing nighttime light sources in the area, including street lights along 7th Street and Silvera Avenue and nighttime security lighting at Kettering Elementary School. Therefore, the lighting proposed in the open space area would result in a less than significant impact.

Cumulative Aesthetic Impacts. The site proposed for landscaping is currently paved and fenced. Landscaping of the site will not have a significant cumulative impact on the visual environment, as the project site has long been occupied by a variety of equipment related to an underground water pipeline. The proposed project will not generate significant adverse effects on adjacent land uses. The proposed improvements are compatible in character with the surrounding area. There are no known visual incompatibilities between the proposed project and planned future projects located in the surrounding area. Project lighting will be consistent with existing nighttime light

sources in the area and will not create a source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, the contribution of the proposed project to potential cumulative visual/aesthetic impacts in the study area is considered less than significant.

Air Quality.

Air Quality Management Plan (AQMP) Consistency. An AQMP describes air pollution control strategies to be taken by a city, county, or region classified as a nonattainment area in order to meet Clean Air Act (CAA) requirements. The main purpose of an AQMP is to bring the area into compliance with the requirements of federal and State air quality standards. The purpose of the proposed project is to construct an open space area along the south side of 7th Street east of Silvera Avenue. Implementation of the proposed project would not result in any population growth. In addition, emissions associated with the construction activities would be below the emissions thresholds established in the South Coast Air Quality Management District (SCAQMD) California Environmental Quality Act (CEQA) Air Quality Handbook, as shown below. Therefore, the project is in accordance with the adopted AQMP.

Short-Term (Construction) Emissions.

Equipment Exhaust. Construction activities would generate combustion emissions from utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions during the construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment would result in localized exhaust emissions. The types and number of construction vehicles expected to be used during construction have been specified based upon typical construction methods for the proposed development. The proposed development consists of site clearance and construction of new open space facilities. Emissions associated with the construction of the new site have been estimated and are shown in Table 5.A. When properly coordinated, construction equipment emissions would not exceed the daily thresholds for the criteria pollutants of nitrogen oxides (NO_X), reactive organic compounds (ROC), carbon monoxide (CO), sulfur oxide (SO_X), and particulate matter less than 10 microns in diameter (PM_{10}).

Fugitive Dust. Fugitive dust emissions are generally associated with land clearing, exposure, and cut-and-fill operations. Dust generated daily during construction would vary substantially, depending on level of activity, specific operations, and weather conditions. Nearby sensitive receptors and on-site workers may be exposed to blowing dust, depending upon prevailing wind conditions.

Table 5.A: Peak Construction Day Equipment Exhaust Emissions

Number and Equipment Type[1]	No. of Hours in Operation	Pollutants[2] (pounds/day)				
		CO	ROC	NO_X	SO_X	PM_{10}
1 Wheeled Dozer	8	14.4	1.5	33.4	2.8	1.3
1 Tracked Loader	8	1.6	0.8	6.6	0.6	0.5
1 Tracked Tractor	8	2.8	1.0	10.0	1.1	0.9
1 Motor Grader	8	1.2	0.3	5.7	0.7	0.5
2 Miscellaneous	8	5.4	1.2	13.6	1.1	1.1
Workers Commutes[3]	50 miles	10.3	1.9	3.3	0.6	1.2
TOTAL		**36**	**7**	**73**	**7**	**6**
Threshold		**550**	**75**	**100**	**150**	**150**
Significant?		**NO**	**NO**	**NO**	**NO**	**NO**

Source: LSA Associates, Inc. 2006.

PM_{10} emissions from site clearance and grading operations during a peak construction day are based on assumptions and past experience with similar-sized projects. The SCAQMD estimates that each acre of graded surface creates about 26.4 pounds of PM_{10} per workday during the construction phase of the project, and 21.8 pounds of PM_{10} per hour from dirt/debris pushing per dozer. It is assumed that the entire 1.37-acre site would be under construction or exposed on any single day. It is also assumed that one dozer would be used eight hours per day, together with other equipment. Therefore, a maximum of 211 pounds of PM_{10} per day would potentially be generated from soil disturbance during the construction phase. This level of dust emission would exceed the SCAQMD threshold of 150 pounds per day during construction.

However, with implementation of the Standard Air Pollution Control Measures listed in Mitigation Measure 4.2.2 (DEIR 2005), fugitive dust emissions from construction activities are expected to be reduced to 105 pounds or less per day, with 50 percent effectiveness. Combined with the six pounds per day generated by equipment exhaust, the total mitigated dust emission of 111 pounds per day would be below the SCAQMD threshold of 150 pounds per day. Table 5.B lists fugitive dust emissions and construction equipment exhaust.

Table 5.B shows that during peak grading days daily total construction emissions without compliance with Mitigation Measure 4.2.2 (DEIR 2005) would exceed the SCAQMD threshold for PM_{10}. However, with the measures implemented, total daily construction emissions would be below the SCAQMD threshold for PM_{10}. The other four air pollutant emissions would be below the daily thresholds established by the SCAQMD without mitigation. Therefore, the open space site with mitigation incorporated will not result in any significant short-term air quality impacts.

1 Number and type of equipment and number of workers are estimates based on similar projects.

2 Emissions factors are from SCAQMD CEQA Air Quality Handbook, Table A9-8-A, Table A9-8-B, and Table A9-8-C.

3 Assuming 24 workers traveling 50 miles round-trip per worker.

Table 5.B: Peak Grading Day Total Emissions (lbs/day)

Category	CO	ROC	NO_X	SO_X	PM_{10}
Vehicle/Equipment Exhaust	36	7	73	7	6
Fugitive Dust from Soil Disturbance—No Mitigation	—	—	—	—	211
Fugitive Dust from Soil Disturbance—With Mitigation	—	—	—	—	105
Total Grading—No Mitigation	36	7	73	7	217
Total Grading—With Mitigation	36	7	73	7	111
SCAQMD Threshold	**550**	**75**	**100**	**150**	**150**
Significant? (With Mitigation)	NO	NO	NO	NO	NO

Source: LSA Associates, Inc. 2006.

Long-Term Regional Air Quality Impacts. With the exception of site maintenance equipment and employee commutes, the proposed open space would not generate any long-term vehicle trips or stationary source emissions. Therefore, the proposed project would not result in any long-term air quality impacts. No mitigation measures would be required.

Objectionable Odors. Some objectionable odors may emanate from the operation of diesel-powered construction equipment during the construction of the open space site. These odors, however, would be limited to the short-term construction period of the project, would be temporary, and therefore would not be significant. Mitigation Measure 4.2.4, included in DEIR 2005, requires that construction equipment be maintained in good operating condition to minimize emissions. No significant impacts related to objectionable odors will result from the proposed project.

Expose Sensitive Receptors to Substantial Pollutant Concentrations. Construction of the open space site may expose the surrounding sensitive receptors to airborne particulates and fugitive dust, as well as a small quantity of construction equipment pollutants (usually from diesel-fueled vehicles and equipment). However, these impacts are temporary and of short duration and will be reduced to below a level of significance with implementation of Mitigation Measure 4.2.2 (DEIR 2005).

Cumulative Air Quality Impacts. As stated in DEIR 2005, the proposed Home Depot project would contribute criteria pollutants to the area during temporary project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction may result in substantial short-term increases in air pollutants. This would be a contribution to short-term cumulative air quality impacts.

The proposed Home Depot project would also result in increases in long-term operational emissions. The project would contribute cumulatively to local and regional air quality degradation.

The Basin is in nonattainment for CO, PM_{10}, and O_3 at the present time. Construction of the proposed Home Depot project, in conjunction with other planned developments within the cumulative study area, would contribute to the existing nonattainment status. Therefore, the proposed Home Depot project would exacerbate nonattainment of air quality standards within the Basin and contribute to adverse cumulative air quality impacts.

As discussed above, construction and operation of the proposed open space site would not result in any new exceedances of the SCAQMD criteria pollutant emissions thresholds. There would be no cumulatively considerable net increase of the criteria pollutants that are in nonattainment status in the South Coast Air Basin (Basin) as a result of the proposed open space site. Soil disturbance would be staggered so as not to occur at the same time as grading of the Home Depot site. Therefore, although the project as a whole result in a significant cumulative air quality impact, the impact reported in DEIR 2005 is not worsened by the addition of the open space area to the project.

Biological Resources

Sensitive Species.

Plants. The study area is a vacant lot that does not support any native vegetation. The area is paved, but does not appear to be regularly maintained. Sparse, low-growing, ruderal vegetation is present in areas where the asphalt has cracked or sediment has accumulated. This vegetation consists primarily of Russian-thistle *(Salsola tragus)*, Bermuda grass *(Cynodon dactylon)*, and crabgrass *(Digitaria sanguinalis)*. Other species observed on site include ripgut grass *(Bromus diandrus)*, red-stemmed filaree *(Erodium cicutarium)*, common groundsel *(Senecio vulgaris)*, and perennial sow-thistle *(Sonchus arvensis)*. Common nonnative species typically found in disturbed areas were observed near the perimeter of the site and include two large California fan palms *(Washingtonia filifera)* and one small Canary Island palm *(Phoenix canariensis)*. No special-interest plant species identified in the literature review were observed in the study area, and none of these species are expected to occur because of the disturbed nature of the site and lack of exposed soil and unpaved surfaces.

Wildlife. Wildlife observed in or flying over the study area include California gull *(Larus californicus)*, Anna's hummingbird *(Calypte anna)*, and American pipit *(Anthus rubescens)*. While special-interest species may forage or fly over the area, none of these species are expected to breed in the area because of the lack of vegetation suitable for nesting and proximity to the roadway. However, the two Mexican fan palms at the eastern boundary of the site may provide nesting habitat for migratory birds.

The City, as required by law, will comply with the requirements of the Migratory Bird Treaty Act (MBTA) and U.S. Fish and Game Code 3503.5. To ensure compliance with the MBTA and the U.S. Fish and Game Code, the City conditions project applicants to retain a qualified biologist to survey project areas where vegetation removal is to occur between January 1 and August 15. The biologist is required to survey the area no more than 30 days prior to the beginning of construction and to monitor the area for active nests during the initial clearing and grubbing procedures. In the event of discovery of active nests in an area to be cleared, protective measures are taken to avoid any impacts to the nests until the young have fledged and nesting activity is

completed. Since a burrowing owl was previously observed on site, the City will require preconstruction surveys according to protocol established by the California Burrowing Owl Consortium. Since these measures are already required by law and enforced by the California Department of Fish and Game (CDFG) and/or the City, no mitigation is required.

Potential Jurisdictional Wetlands and Jurisdictional Waters. Small curbs along the perimeter of the site appear to be used for drainage purposes, but do not exhibit an ordinary high water mark, and therefore would not likely be considered jurisdictional. The site does not contain any other drainage courses that potentially meet the State and/or federal definitions of streambeds, wetlands, and/or waters of the U.S., nor any that would be subject to the jurisdictional authority of regulatory agencies. Therefore, it is anticipated that the proposed open space project will not require any permits from the U.S. Army Corps of Engineers (Corps) or the CDFG.

Wildlife Movement Corridors. The site may be used for movement of small mammals such as opossum, coyote, and other wildlife that utilize the Channel View Park trail adjacent to the Los Cerritos Channel. The proposed open space site will provide similar or improved opportunities for wildlife movement as the current condition, and will not impede wildlife movement. Therefore, no potential adverse impacts to regional wildlife movement are anticipated as a result of the proposed project. In fact, the proposed open space site would enhance the habitat value for wildlife use.

Ordinances, Plans, and Policies. The City of Long Beach has a tree ordinance that applies to City-owned trees. A ministerial permit would be required if the project would remove trees from City-owned property. However, no City-owned trees will be removed as part of the project, and no mitigation is required.

The open space site is not within any U.S. Fish and Wildlife Service (USFWS) designated critical habitat areas and is not within an area designated for conservation in a Natural Community Conservation Plan (NCCP). There is no adopted Habitat Conservation Plan (HCP), NCCP, or other habitat conservation plan in the City of Long Beach; therefore, the project will not conflict with any such plans. The proposed open space site is not located within the coastal zone. The project site at the intersection of Studebaker Road and Loynes Drive is located within the coastal zone and is subject to the requirements of the City's Local Coastal Program.

Cumulative Biological Impacts. The proposed open space site will not result in a loss of wetland habitat, will not impact any sensitive species, and will not directly or indirectly impact any wetlands. Therefore, the proposed open space site would not contribute to cumulative losses of sensitive species or habitat, and no significant cumulative biological impacts would occur as a result of implementation of the proposed off-site open space.

Cultural and Paleontological Resources.

Historical Resources. The project site at the corner of 7th Street and Silvera Avenue is currently vacant, asphalt-paved, and surrounded by fencing. Small wooden sheds or "pump" houses are

located on southern parcel and appear to contain equipment related to an underground water pipe traversing the site. There are no historic structures, as defined in State CEQA Guidelines Section 15064.5, on the project site. Therefore, no mitigation is required for impacts to historical resources on site, and project impacts related to historical resources are less than significant.

Paleontological Resources. The site is located within an area of recent Quaternary alluvial sediment brought to the area by the San Gabriel River and surrounded by bedrock exposures of Late Pleistocene sediments of the San Pedro and Palos Verde Sands deposits, known to produce limited vertebrate fossils. It is unlikely that *in situ* deposits of fossiliferous sediments will be encountered during project construction. However, there is a potential to encounter unknown paleontological resources during excavation activities. Mitigation Measure 4.4.1 found in DEIR 2005 addresses potential impacts with regard to discovered paleontological resources and is applicable to the proposed open space site.

Archaeological and Prehistoric Resources. On February 5, 2004, a records search for the Long Beach Home Depot project was conducted at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The records search included the project area and a 0.5-mile (0.8-km) radius around it. The radius included the proposed open space site to that is currently being considered. On February 16, 2006, LSA Associates, Inc. (LSA) contacted the SCCIC to determine whether subsequent to the 2004 Long Beach Home Depot records search: (1) any cultural resources had been identified within the 0.5-mile radius of that records search (extension area) and (2) any cultural resource studies had taken place within that area. SCCIC staff informed LSA that subsequent to the 2004 records search, one cultural resource study that includes the proposed open space site has been completed. While cultural resources were identified during that study, none were recorded within the proposed open space site. Also, the entire site is covered with asphalt. Since visibility of the ground surface is zero percent, a survey is not recommended. However, because other resources have been recorded within the vicinity of the extension area, an archaeological monitor should be present during any construction-related ground-disturbing activities. Mitigation Measure 4.4.3 requires the presence of a Los Angeles County certified archaeologist at the pre-grading meeting and during all grading activity on the proposed open space site. Mitigation Measure 4.4.3 will reduce project impacts related to unknown archaeological and prehistoric resources to a less than significant level.

In addition, Mitigation Measure 4.4.2 required compliance with State Health and Safety Code 7050.5 in the event that human remains are encountered. Implementation of Mitigation Measure 4.4.2 will reduce potential impacts related to the discovery of human remains to a less than significant level.

Cumulative Cultural Resources Impacts. The proposed project, in conjunction with other past, present, or reasonably foreseeable future projects, has the potential to result in a cumulative impact due to the loss of undiscovered paleontological resources and human remains during grading and construction activity. Incorporation of mitigation measures will reduce the proposed

project's incremental contribution to this potential cumulative impact to a less than significant level.

4.4.3 In conjunction with the submittal of applications for rough grading permits, the Director, Department of Planning and Building, shall verify that a Los Angeles County certified archaeologist has been retained, shall be present at the pregrading conference and shall establish procedures for temporarily halting or redirecting work if unrecorded archaeological resources are discovered during grading to permit the sampling, identification, and evaluation of archaeological materials as appropriate. The cultural resource management program will include resource monitoring during project grading of archaeologically sensitive sediments to ensure that unidentified cultural resources are not affected by the proposed undertaking. If archaeological materials are identified during construction, standard professional archaeological practices shall be initiated to characterize the resources and mitigate any impacts to those resources. Included within this program will be the development of a curation agreement for the permanent care of materials collected from the project. This agreement would be negotiated with a suitable repository.

Geology and Soils.

Shrinkage and Subsidence. Shrinkage is the loss of soil volume caused by compaction of fills to a higher density than before grading. Subsidence is the settlement of in-place subgrade soils caused by loads generated by large earthmoving equipment.

The proposed open space site is not located within an area of known subsidence that may be associated with groundwater or petroleum withdrawal, peat oxidation, or hydrocompaction. No oil exploration has been reported at the site. Thus, the potential site constraint associated with land subsidence is considered low, and no mitigation is required.

Wastewater Disposal. The project does not include the use of septic tanks or alternative methods for disposal of wastewater into the subsurface soils. The proposed landscaping of land adjacent to 7th Street and Silvera Avenue does not include connections to or extensions of existing sewer lines to the proposed open space site. A new sewer line is proposed for the project site at the intersection of Studebaker Road and Loynes Drive. Refer to Section 4.10 of this Recirculated Draft EIR for a detailed discussion of this project component.

Seismic Considerations. The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, nor is it currently identified by the regulatory community as being located within zones of either primary or secondary co-seismic surface deformation (e.g., pressure ridges, escarpments, fissures). Thus, the site is not expected to experience primary surface fault rupture or related ground deformation during the life of the proposed open space.

The site may experience significant ground shaking or secondary seismic ground deformation effects should a major seismic event occur along the Newport-Inglewood Structural Zone (the nearest recognized surface traces) or any active faults; therefore, construction of the proposed

project will incorporate seismic design recommendations from the final geotechnical investigation for the proposed project (Mitigation Measure 4.5.1; refer to Section 4.5 of DEIR 2005). No structures are proposed for the open space site. Seismic ground shaking impacts are considered less than significant with implementation of design considerations as well as the current Uniform Building Code and standard engineering practices and in light of the fact that no buildings are proposed on this site.

Erosion Potential. There is the potential for soil erosion to occur at the site during site preparation and grading activities. The proposed project will include grading of topsoil on the project site to allow for landscaping and drainage features. After landscaping, erosion potential will be minimal. Mitigation measures are required to reduce fugitive dust and transport of soil into Los Cerritos Channel (refer to Section 4.2 of the DEIR 2005). With implementation of these standard control measures, soil erosion potential will be reduced to less than significant levels.

Liquefaction. Most of the subsurface soils in the area are either cohesive soils that do not satisfy the characteristics necessary for liquefaction or are dense to very dense granular soils. The main impact would be settlement of the ground surface. The projected settlement due to liquefaction is not considered significant because no buildings or foundations are proposed that would be affected by geotechnical constraints such as liquefaction. Therefore, the potential for impacts resulting from liquefaction is considered less than significant.

Lateral Spreading. A potential result of soil liquefaction on site is lateral spreading, which is the differential movement of the ground surface due to open face excavations. As stated above, most of the subsurface soils in the area are either cohesive soils that do not satisfy the characteristics necessary for liquefaction or are dense to very dense granular soils. Therefore, lateral spreading is not considered likely. Mitigation Measure 4.5.2 (DEIR 2005) requires a final geotechnical investigation as well as plan review by the geotechnical consultant and the City. Therefore, potential impacts regarding lateral spreading will be less than significant with mitigation incorporated.

Expansive Soils. The clayey soils in the area have an expansion potential of medium to high and are considered to be severely corrosive to steel (Appendix E of DEIR 2005). Without protection, structural foundations could be affected, potentially leading to foundation failure. However, no buildings or structural foundations are proposed on the proposed open space site. Therefore, potential impacts related to expansive soils on that site are considered less than significant. Mitigation Measure 4.5.2 (DEIR 2005) will ensure that recommendations would be provided in a comprehensive geotechnical report to mitigate for potential impacts related to corrosion and expansive soils during the design and construction of the open space site.

Site Preparation. Site preparation includes removal of existing facilities, excavation, subgrade preparation, placement and compaction of fill, foundation preparation, floor slab preparation, positive surface gradient preparation, and pavement of other areas. Only surface soils on the

proposed open space site will be graded. Subsurface facilities, including electrical and water equipment vaults, will not be removed. No buildings or structural foundations are proposed for the open space site, however, pump houses and electrical sheds will be relocated to the area within the Los Angeles County Flood Control District easement. Therefore, impacts related to site preparation are considered less than significant for the proposed open space site. Mitigation Measure 4.5.3 (DEIR 2005) will reduce potential impacts related to site preparation of the project site at the intersection of Studebaker Road and Loynes Drive to a less than significant level.

Cumulative Geology and Soils Impacts. For the analysis of Geology and Soils, the study area considered for the cumulative impact of other projects consisted of (1) the area that could be affected by proposed project activities; and 2) the areas affected by other projects whose activities could directly or indirectly affect the geology and soils of the proposed project site. In general, only projects occurring adjacent to or very close to the project site were considered. Neither the proposed project nor any of the identified projects with potential cumulative impacts entailed activities that would affect geology and soils at significant distances from the site (e.g., projects requiring significant structural blasting or drilling, high vibration activities, deep excavation, etc.).

The analysis indicated that there would be no significant cumulative impact of the proposed project related to geology and soils. This conclusion is based on the following:

- There are no rare or special geological features or soil types on site that would be affected by project activities.
- There are no other known activities or projects with activities that would affect the geology and soils of this site.

Hazards and Hazardous Materials

Refer to Section 4.6 of this Recirculated Draft EIR for analysis of Hazards and Hazardous Materials impacts related to landscaping of the 1.37-acre site at the corner of 7th Street and Silvera Avenue.

Hydrology and Water Quality

Groundwater Supply. The project site at the corner of 7th Street and Silvera Avenue is not within an area that is used for groundwater production. This site would be landscaped and would connect an existing water main in 7th Street. The removal of existing asphalt at this site and replacement with pervious surfaces would increase the potential for groundwater percolation into the soil. Therefore, no mitigation is required for impacts to groundwater supply and project impacts to groundwater supply are less than significant.

Flooding. According to the Phase I Environmental Site Assessment prepared for the open space site, this site is not within the 100- or 500-year floodplain.[1] Therefore, no mitigation for impacts to floodplains is required.

Water Quality.

Construction. The open space site would be subjected to the same General Construction Permit and Municipal Code requirements as the proposed Home Depot site. The open space site would be included in the Storm Water Pollution Prevention Plan (SWPPP) for the project and construction best management practices (BMPs) would be implemented as required by Mitigation Measure 4.7.1 from DEIR 2005. With implementation of Mitigation Measure 4.7.1, no significant impacts would occur.

Operation. With the project, the open space site would change from an area mostly covered by impervious asphalt to a landscaped area. The increase in pervious area would reduce the amount of runoff from the site and associated pollutant loading and would allow some percolation of water into the soil. The open space site would include City-required Source Control BMPs such as xeriscape and erosion protection (Table 4.7.E of the DEIR) and new development BMPs such as landscape planning and efficient irrigation, and building and grounds maintenance (Table 4.7.F of the DEIR). The project-level Standard Urban Stormwater Management Plan (SUSMP) for the proposed project will include the BMPs required for the open space site and is subject to review and approval by the City Director of Public Works (Mitigation Measure 4.7.4 of DEIR 2005). With implementation of Mitigation Measure 4.7.4, no significant impacts would occur.

Drainage and Erosion. As mentioned above, the proposed project would reduce runoff from the open space site. The open space site currently drains to the southeast via an asphalt berm. With the project, the existing drainage pattern would be maintained via swales. The proposed project would not increase storm flows from the open space site, would not change the drainage pattern, and would not affect the capacity of existing drainage systems. No significant impacts would occur and no mitigation is required.

Cumulative Hydrology and Water Quality Impacts. The project would provide a beneficial effect to hydrology and water quality at the open space site because it would reduce runoff flows from the site. Therefore no significant cumulative impacts would occur.

Land Use

Physically divide an established community. The project site at the corner of 7th Street and Silvera Avenue is currently vacant, asphalt-paved, and surrounded by fencing. Small wooden sheds or "pump" houses are located on the southern parcel and appear to contain equipment

[1] Geosyntec Consultants. Phase I Environmental Site Assessment Two Vacant Parcels Associated with the Proposed Home Depot Development, Long Beach, California. July 7, 2005.

related to an underground water pipe traversing the site. The project proposes to construct landscaped open space adjacent to the existing Channel View Park. The project site does not currently connect with or serve as a focal point in the community. As open space, the proposed project will serve community recreation needs. Therefore, implementation of the proposed project would not result in the physical division of an established community.

Conflict with any applicable habitat conservation plan or natural community conservation plan. The proposed project will not conflict with any habitat conservation plan or natural community conservation plan. There are no such plans applicable to the project site.

Conflict with Existing On-Site and Adjacent Land Uses. The project site at the corner of 7th Street and Silvera Avenue is currently vacant, asphalt-paved, and surrounded by fencing. Small wooden sheds or "pump" houses are located on the southern parcel and appear to contain equipment related to an underground water pipe traversing the site. The project site is located between 7th Street and Kettering Elementary School. The site is bounded on the west by Silvera Avenue and residential properties, on the north by 7th Street and residential properties, on the east by Channel View Park and the Los Cerritos Channel, and on the south by Kettering Elementary School.

Short-term effects of the project will result from earth-moving activities on the project site and installation of landscaping. These activities will result in short-term air quality effects, as described in this Recirculated Draft EIR, and short-term, construction-related noise impacts. None of the surrounding land uses will experience short-term effects outside those described above. Mitigation measures are included to reduce the effect of short-term construction air quality and noise impacts. Short-term noise effects are less than significant. Short-term air quality impacts for the entire proposed project (i.e., the proposed open space site and the project site at the intersection of Loynes Drive and Studebaker Road) remain significant after implementation of mitigation measures.

Long-term land use compatibility and operational conflicts are generally considered significant if they lead to physical impacts on persons living or working in the area. Such incompatibilities and conflicts are characterized by substantial nuisances, such as significant unmitigated increases in traffic, noise, air pollution (including odor), or activity level, or substantial incongruity and conflict (physical and visual) with adjacent land uses. As previously stated, the proposed open space site is surrounded by residential uses, open space, and an educational facility. Landscaping of the 1.37-acre site at the corner of 7th Street and Silvera Avenue will not result in substantial incongruity or conflict with adjacent uses. The proposed project will landscape current vacant land, effectively extending Channel View Park in the area adjacent to Kettering Elementary. There are no odors, traffic increases, aesthetic features, or noise impacts related to the proposed open space area that would conflict with existing adjacent land uses.

Conflict with applicable land use plans, policies, or regulations.

General Plan. The General Plan for the City of Long Beach articulates a vision that gives direction to the long-range development of the City. The proposed open space site is currently designated LUD No. 7, Mixed Use in the City of Long Beach General Plan. LUD No. 7 is intended for the careful and synergistic blending of different types of land use to vitalize an area and to support urban structure.

The proposed open space site is consistent with the current General Plan designation for the site, and a General Plan amendment is not required for project implementation. The proposed project will give the site greater importance in the urban structure of the City of Long Beach by linking it to Channel View Park and its use as an open space site will vitalize an underutilized property.

Section 4.8.2 identifies two goals of the General Plan Land Use Element that are applicable to the project site. As outlined below, the proposed project furthers the intent of these goals:

Managed Growth: Guide growth to have an overall beneficial impact upon the City's quality of life.

Project: The proposed open space site will provide park space on land that has been underutilized as a result of development constraints. The overall project will increase commercial retail opportunities in the City and result in redevelopment of an underutilized property; therefore, it is consistent with this goal.

Functional Transportation: Long Beach will maintain or improve the current ability to move people and goods to and from development centers while preserving and protecting residential neighborhoods.

Project: Although the proposed open space site does not include transportation system improvements (the Home Depot project as a whole includes transportation system improvements; refer to Section 4.11 of DEIR 2005 for additional information), the proposed open space area will tolerate high traffic volumes while not generating flows on 7th Street. It will also create a landscaped buffer between 7th Street and Kettering Elementary School.

Local Coastal Program. Unlike the project site at the intersection of Studebaker Road and Loynes Drive, the proposed open space site is not located in the Coastal Zone. However, the proposed project will (as a whole) require the issuance of a Local Coastal Development Permit (LCDP) because the project site at the intersection of Loynes Drive and Studebaker Road is located in the coastal zone. Mitigation Measure 4.8.1 in DEIR 2005 requires approval of an LCDP prior to project implementation.

The proposed Home Depot project is consistent with the policies outlined in the LCP. The proposed project will be developed and function as an integrated shopping center, with adequate on-site parking and landscaping on a site previously developed and used for industrial purposes. Sandwiched between existing generating plants, ancillary power-generating facilities, and the San

Gabriel River and Los Cerritos Channel, the proposed project represents a development opportunity for a currently underdeveloped and underutilized site. The proposed project answers the need to balance economic development factors with the existing environmental constraints of the project site (e.g., adjacent land uses, traffic, and soil that has been impacted by petroleum hydrocarbons).

Further, the proposed project is consistent with the concept of fiscal responsibility. As development funded by private entrepreneurs, the proposed project will result in development of the project site in a manner that is consistent with environmental standards and will result in a low development cost burden to the City and residents of Long Beach. The project site will be required to implement traffic improvements to the surrounding circulation system. As outlined in Section 4.11 of DEIR 2005, not all project impacts will be reduced to below a level of significance. However, traffic intrusion into residential neighborhoods will be minimal, consistent with the objectives of the LCP.

In addition, the project will increase pedestrian and bicycle access opportunities. The proposed development provides a trail along Studebaker Road that will allow pedestrians and bicyclists to access the site; cross at the signalized intersection over the Los Cerritos Channel; and pick up the existing trail along the west side of the channel, which links the site with the existing residential areas farther north. Pedestrians and bicyclists using Channel View Park will also be able to access the proposed open space site at the corner of 7th Street and Silvera Avenue. The project proposes to provide a five-foot-wide decomposed granite travel along the length of the site, effectively extending the Channel View Park bike path to Silvera Avenue. 0.63 acre of the 1.37-acre site will be deeded to the City of Long Beach as public open space, consistent with the City's park dedication policy.

Zoning Ordinance. The proposed open space site is currently zoned Planned Development (PD-1), which is the Southeast Area Development and Improvement Plan (SEADIP) area. The PD district was established to allow flexible development plans to be prepared for areas of the City that may benefit from the formal recognition of unique or special land use and the definition of special design policies and standards not otherwise possible under conventional zoning district regulations. Purposes of the PD district include permitting a compatible mix of land uses, allowing for planned commercial areas and business parks, and encouraging a variety of housing styles and densities (Ord. C-6533 § 1 (part), 1988).

SEADIP was adopted by the Long Beach City Council in 1977 as a specific plan and amendment to the then-current General Plan. It was later incorporated into the LCP for the City of Long Beach. As a PD zoning district, SEADIP provides development standards for property in the 1,470-acre planning area.

The proposed open space site is located within Subarea 14 of PD-1 (SEADIP). At the time SEADIP was adopted, the project site was thought to be owned by the California Department of Transportation, and the Specific Plan called for Subarea 14 (i.e., the project site at the corner of 7th Street and Silvera Avenue) to be improved as landscaped open space. The project proposes to improve the site with landscaping and to provide pedestrian access from the project site to the existing Channel View Park.

SEADIP did not establish standards for site landscaping; therefore, the development standards of the Park (P) District are applicable. The P district is the zoning district that is closest to the overall intentions of SEADIP with regard to the site.

Development standards for the P district are found in Chapter 21.35 of the Long Beach Zoning Code. The applicable development standards in the P zone and PD-1 zoning district are as follows:

Minimum Setbacks:	10 feet (from street rights-of-way) 5 feet from any other zoning district
Maximum Building Height:	30 feet
Maximum Site Coverage	1 percent (for mini and greenway parks)
Signage	Each park may display one freestanding sign, not to exceed one hundred (100) square feet, on each street frontage facing each direction, and one freestanding sign, not to exceed twenty four (24) square feet, for each major vehicle entrance to the park. Such signs shall identify the name of the park only.
Maximum Fence Height:	6 feet within yard area abutting a public street 10 feet for other yard areas

Landscaping on site will be provided in accordance with 21.42 of the City of Long Beach Zoning Ordinance.

The proposed project will result in the conversion of the site at the corner of 7th Street and Silvera Avenue to public open space in accordance with SEADIP and the provisions of the City of Long Beach Zoning Ordinance. The proposed project does not required a zone change, and no mitigation is required.

There are several additional provisions of the SEADIP that are applicable to the proposed project, including both the proposed Home Depot and the proposed open space site. As outlined below, the proposed project is consistent with these provisions.

Provision A.4: A minimum of thirty percent of the site shall be developed and maintained as useable open space.

Project: Approximately 27.55 percent of the site is reserved for open space on the proposed Home Depot site at the corner of Studebaker Road and Loynes Drive. With the addition of the proposed open space site, approximately 33 percent of the total project site (i.e., the Home Depot site on Studebaker Road and the open space site on 7th Street) is reserved for open space. Although a variance is still required because the open space is

not located on the Home Depot project site, by integrating usable open space into the overall project, the project meets the intent of SEADIP.

Provision A.8: All development shall be open and inviting to the public; the public shall not be excluded from use of private streets and bicycle and pedestrian trails.

Project: The proposed Home Depot site design includes additional landscaping along the main project entrance and a landscaped trail along Studebaker Road to promote public access. The proposed open space site will include landscaping of a 1.37-acre site and additional public access to Channel View Park.

Provision A.9: All development shall be designed and constructed to be in harmony with the character and quality of surrounding development so as to create community unity within the entire area.

Project: The landscaping and trails along the front setback area of the project site at the intersection of Studebaker Road and Loynes Drive tie into additional open space areas along the entry drive that include amenities and outdoor seating for community use. In addition, the project will allow community use of the site for commercial retail purposes. Commercial retail uses in an industrial area provide support services and amenities to surrounding industries and the neighborhoods and communities of Long Beach. Landscaping of the proposed open space site at the corner of 7th Street and Silvera Avenue will effectively extend Channel View Park into the area adjacent to Kettering Elementary School. The proposed open space use is consistent with existing residential and public facility uses adjacent to the site.

Provision A.10: Developers shall construct public open space, trails, pathways and bicycle trails for each development in such a manner that they will be generally accessible to the public and that they will interconnect with similar facilities in adjacent developments so as to form an integrated system of open space and trails connecting major points of destination.

Project: The proposed development provides a trail along Studebaker Road that will allow pedestrians and bicyclists to access the site; cross at the signalized intersection over the Los Cerritos Channel; and pick up the existing trail along the west side of the channel, which links the site with the existing residential areas farther north. Pedestrians and bicyclists using Channel View Park will also be able to access the proposed open space site at the corner of 7th Street and Silvera Avenue. The project proposes to provide a five-foot-wide decomposed granite travel along the length of the site, effectively extending the Channel View Park bike path to Silvera Avenue.

Provision A.13: Adequate landscaping and required irrigation shall be provided to create a park-like setting for the entire area. A landscaped parkway area shall be provided along all developments fronting on Pacific Coast Highway, Westminster Avenue, Studebaker Road, Seventh Street and Loynes Drive.

Project: A landscaped parkway, which ranges from 80 to 120 feet in width, is provided along Studebaker Road. Landscaping in the parkway will partially screen buildings and

provide shade along the parkway. Additional landscaping is also included within the project site. Landscaping of the proposed open space site at the corner of 7th Street and Silvera Avenue will effectively extend Channel View Park into the area around Kettering Elementary School (along 7th Street). Water for irrigation will come from an existing water main in 7th Street.

Provision A.14: No additional curb cuts shall be permitted on Pacific Coast Highway, Westminster Avenue, Studebaker Road, or Seventh Street unless it can be shown that inadequate access exists from local streets or unless specifically permitted by Subarea regulations provided herein. This restriction shall not preclude the provision of emergency access from these streets as may be required by the City.

Project: Inadequate access to the project site at Studebaker and Loynes currently exists. At present, the project site is accessed through one of the adjacent power-generating stations. Any uses on the project site would require additional access points and emergency access points to comply with City codes and regulations. No additional curb cuts are proposed to access the open space site at the corner of 7th Street and Silvera Avenue.

Provision A.15: All utility lines shall be placed underground and utility easements shall be provided as required unless waived by the Commission on the advice of the Director of Public Works.

Project: Existing and proposed utility lines on site will be undergrounded, removed, or relocated.

Provision A.16: Developers shall construct, in accordance with plans approved by the Director of Public Works, all necessary sanitary sewers to connect with existing public sewers, and shall provide easements to permit continued maintenance of these sewers by the City where the City accepts responsibility for such maintenance.

Project: Pursuant to City Sewer Master Plans, a privately owned sewer lift station and force main that will be connected to an existing public sewer line located in East Vista Street are proposed in conjunction with development of the site at the intersection of Studebaker Road and Loynes Drive. In addition, the project includes the replacement of 265 feet of an existing 8-inch-wide public sewer line with a 10-inch-wide sewer line in Vista Street between Daroca Street and Margo Street and the replacement of 261 feet of an 8-inch sewer line with a 10-inch-diameter sewer line between the manhole at Daroca and Vista Street and the first manhole in the golf course. Replacement of the existing 8-inch-wide sewer lines with 10-inch-wide sewer lines will serve the proposed project and correct the hydraulic overloading conditions that currently exist during wet weather conditions. The open space site will not require sewer service.

Provision A.17: Developers shall construct, in accordance with plans approved by the Director of Public Works, all new streets and ways within the area. All streets and ways will include the following:

a. Roadway pavement, curbs, and sidewalks approved by the Director of Public Works. The sidewalk may be combined with an enlarged bicycle trail in such cases where the Commission and the Director of Public Works determine that an independent sidewalk is not required for pedestrian convenience and safety.

b. Water lines approved by the General Manager of the Water Department.

c. Fire hydrants approved by the Fire Chief and the General Manager of the Water Department.

d. Street lighting using low-energy luminaries, as approved by the Director of Public Works.

e. Storm drainage approved by the Director of Public Works.

f. Street trees approved by the Manager of the Parks Bureau.

g. Street signs and pavement traffic marking approved by the Director of Public Works.

h. All Traffic control devices required by the Director of Public Works.

Project: The proposed project includes on- and off-site roadway improvements, including installation of pavement and sidewalks, as required. The Director of Public Works and the Long Beach Traffic Engineer will oversee all roadway improvements and installation of street signs, pavement traffic markings, and traffic control devices. The proposed project includes a landscaped trail and a sidewalk along Studebaker Road. The proposed project includes the replacement of existing on-site infrastructure and provides connections to existing water mains under Studebaker Road and 7th Street (for irrigation of the open space site). Existing lines on the Studebaker site will be abandoned and removed and new water lines will be constructed. The on-site water system will be maintained by the project applicant and will be constructed to Long Beach Planning and Building standards. Fire hydrants will be installed to Long Beach Fire Department and Long Beach Water Department specifications. Gravity sewer lines in public streets will be designed to Long Beach Water Department standards. All lighting will be subject to a Lightning Plan approved by the City of Long Beach Director of Planning and Building.

As previously stated, the proposed project will result in the conversion of the site at the corner of 7th Street and Silvera Avenue to public open space in accordance with SEADIP and the provisions of the City of Long Beach Zoning Ordinance. The proposed project does not require a zone change, and no mitigation is required. In addition, the proposed open space site is consistent with the provisions of SEADIP and does not require a standards variance. The proposed project furthers the overall intent of the PD-1 (SEADIP) zoning district to provide a community of residential, business, and light industrial uses integrated with a system of parks, open space, and trails. The landscaping along Studebaker Road is in excess of the required setback and includes wetlands-themed landscaping and a trail, which demonstrates that the project serves to fulfill the overall intent of SEADIP. In addition, the open space site at the corner of 7th Street and Silvera Avenue furthers the intent of SEADIP regarding the formal open space requirements for the project. The inclusion of the open space site does not result in any new significant impacts related to zoning and no mitigation is required.

Citywide Strategic Plan. Long Beach 2010, the Citywide Strategic Plan, includes several goals specific to economic development and business development in the City of Long Beach. Although the proposed open space area does not directly support economic development, it is part of a larger project that will allow commercial development of currently underutilized land.

The project objective of enhancing the economic vitality of the City of Long Beach by transitioning a site from brownfield to commercial retail center is consistent with the goals of the Strategic Plan. The proposed project will directly contribute to business development, job creation, the revitalization of aging areas, and infill development (Economic Development Goals 1–3).

For additional discussion of Long Beach 2010 and the proposed project's consistency with that plan, please refer to Section 4.8 in DEIR 2005.

Cumulative Land Use Impacts. Construction of the proposed project, when considered in conjunction with several other existing and planned developments in proximity to the project, will continue the pattern of infill urban development in the City of Long Beach and the City of Seal Beach. The proposed project, including the off-site open space site, will not contribute to a pattern of development that adversely impacts adjacent land uses or conflicts with existing or planned land uses. Conversion of the property at 7th Street and Silvera Avenue to landscaped open space will enhance the aesthetics of the built environment in this area of the City. There are no incompatibilities between the proposed open space site and planned future projects defined in DEIR 2005. Therefore, the contribution of the proposed open space to potential cumulative land use compatibility impacts (aesthetics, noise, air quality, odors, and traffic and circulation) in the study area is considered less than significant.

Noise

Construction Noise. Two types of short-term noise impacts could occur during construction of the proposed project. The first type would result from the increased traffic associated with the transport of workers and equipment. The second type would result from the actual construction activity. Each of these potential noise impacts is described below.

Short-term significant noise impacts would be associated with increased construction traffic on access roads and demolition, excavation, grading, and building erection on the project site during construction. Noise levels from these activities may range up to 91 A-weighted decibel (dBA) maximum instantaneous noise level (L_{max}) intermittently outside of the adjacent school and the residential units nearest the project site.

The transport of workers, construction equipment, and materials to the project site would incrementally increase noise levels on access roads leading to the site. Although there would be potentially high, single-event noise exposures with construction-related vehicles (e.g., trucks passing by at 50 feet generate a maximum level of 87 dBA), causing possible short-term intermittent nuisance, the effect on long-term ambient noise levels would be small and less than significant. Therefore, short-term temporary construction-related impacts associated with worker and equipment transport to the project site would result in a less than significant impact on noise sensitive receptors along access routes leading to the project site.

Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would vary the character of the noise generated on the project site and therefore the noise levels surrounding the project site as construction progresses. Despite the variety in type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 5.C provides estimates of typical construction equipment noise levels based on a distance of 50 feet between the equipment and a noise receptor.

The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels (the noisiest construction machinery is earthmoving equipment). Construction of the proposed project is expected to require the use of earthmovers such as bulldozers and scrapers, loaders and graders, water trucks, and pickup trucks. Typical operating cycles for such construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. As shown in Table 5.C, the maximum noise level generated by each earthmover on the proposed project site is estimated to be 88 dBA at 50 feet from an operating earthmover. The maximum noise level generated by water and pickup trucks is approximately 86 dBA at 50 feet from these vehicles. Each doubling of the sound sources with equal strength would increase the noise level by 3 dBA. Assuming each piece of construction equipment operates at some distance apart from the other equipment, the worst-case combined noise level during this phase of construction would be 91 dBA L_{max} at a distance of 50 feet from an active construction area.

There are existing school facilities within 50 feet of the project boundary that would be subject to noise levels of 91 dBA L_{max} from construction of the proposed project. However, construction of the project would not significantly affect land uses adjacent to the project site with implementation of Mitigation Measure 4.9.2 (DEIR 2005).

Long-Term Noise. With the exception of maintenance crew commutes, the proposed project area would not generate any additional daily vehicle trips. In addition, the project site would not contain any noise sensitive or noise generating land uses such as playfields, playgrounds, or picnic areas. The project proposes to provide landscaping (e.g., trees, plants, grass) and hardscape (e.g., sidewalks, benches) that would result in intermittent use by cyclists or pedestrians. Therefore, no mitigation measures are required for long-term on-site and off-site uses.

Groundborne Vibration. Construction of the project would not result in significant groundborne vibration or groundborne noise on properties adjacent to the project site. Furthermore, project operation would not generate significant groundborne noise and vibration. Groundborne vibration from construction activity will be mostly low to moderate, except when pavement breaking occurs on the project site. However, even during periods of pavement breaking, there is sufficient distance between the nearest sensitive uses (approximately 50 feet from the project site boundary) and the construction site that it is unlikely that any damage to buildings associated with these uses would occur. Therefore, no significant groundborne noise and vibration impacts would occur, and no mitigation measures are required.

Table 5.C: Typical Construction Equipment Noise Levels

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile drivers, 12,000 to 18,000 ft-lb/blow	81–96	93
Rock drills	83–99	96
Jack hammers	75–85	82
Pneumatic tools	78–88	85
Pumps	74–84	80
Scrapers	83–91	87
Haul trucks	83–94	88
Cranes	79–86	82
Portable generators	71–87	80
Rollers	75–82	80
Dozers	77–90	85
Tractors	77–82	80
Front-end loaders	77–90	86
Hydraulic backhoes	81–90	86
Hydraulic excavators	81–90	86
Graders	79–89	86
Air compressors	76–89	86
Trucks	81–87	86

Source: Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman. 1987.

Permanent Ambient Noise Levels. With the exception of maintenance crew commutes the proposed project area would not generate any additional daily vehicle trips. In addition, the project site would not contain any noise sensitive or noise generating land uses such as playfields, playgrounds, or picnic areas. The project proposes to provide landscaping (e.g., trees, plants, grass) and hardscape (e.g., sidewalks, benches) that would result in intermittent use by cyclists or pedestrians. Therefore, the proposed project would not result in any significant long-term noise impacts. No mitigation measures would be required.

Temporary Ambient Noise Levels. Although at times there would be high intermittent construction noise in the project area during project construction, construction of the project would not significantly affect land uses adjacent to the project site. In addition, construction at the project site would comply with the hourly limits specified by Mitigation Measure 4.9.2 (DEIR 2005). Therefore, any potential impact would be mitigated to a level less than significant.

Airport Noise and Private Airstrips. The Long Beach Municipal Airport is located approximately two miles northeast of the project site. Based on the aircraft noise contours produced by the airports, the project site does not lie within the 60 dBA community noise equivalent level (CNEL) contour of the airport. Therefore, the potential for a significant impact from airport-related activities is small, and a single-event noise impact analysis is not warranted for this site.

The project site is not located within the vicinity of a private airstrip. Therefore, no impacts are related to this issue.

Cumulative Noise Impacts. As stated in DEIR 2005, the proposed project (i.e., the Home Depot project analyzed in DEIR 2005) will contribute to cumulative traffic noise impacts in the vicinity of the project site, but sounds levels will not increase by more than 3 dBA from their corresponding existing levels, resulting in a less than significant cumulative noise impact. Construction and on-site operation of the proposed open space site would not contribute to off-site cumulative noise impacts from other planned or future projects. The proposed open space site will not increase traffic levels and would not lead to an increase in cumulative traffic noise. Construction impacts would be limited in duration and would occur only during hours allowed by the Long Beach Municipal Code (per Mitigation Measure 4.9.2).

Public Services and Utilities

Refer to Section 4.10 of this Recirculated Draft EIR for analysis of potential Public Services and Utilities impacts related to landscaping of the 1.37-acre site at the corner of 7th Street and Silvera Avenue.

Transportation and Circulation

Air Traffic. The Long Beach Municipal Airport is located approximately 3 miles northwest of the proposed open space site. The proposed open space site is not located within an aircraft flight path

and is not located within the Airport Safety Zone or the Airport's current adopted noise contours. The Los Alamitos Reserve Air Station is located approximately two miles northeast of the site. The proposed open space is not anticipated to result in a change in air traffic patterns that results in substantial safety risk. Likewise, the proposed open space site is not anticipated to be impacted by the existing airports. The impact of the proposed open space site on air traffic is anticipated to be less than significant, and no mitigation would be required.

Hazards and Emergency Access. Pedestrians and bicyclists would be able to access the proposed open space site from the corner of 7th Street and Silvera Avenue and from the east via an access walk connected to Channel View Park. Vehicular access to the site would be limited to maintenance vehicles accessing the County Flood Control Easement area. Maintenance vehicles will access the site from Silvera Avenue (where the existing access point is located). Emergency vehicles would be able to access the site along its frontage on 7th Street and at pedestrian and maintenance vehicle access points. Therefore, any impacts to emergency access associated with the proposed project will be less than significant, and no mitigation would be required.

Neighborhood Street Impact. During the Notice of Preparation/Scoping process, local residents expressed concern that project traffic would be distributed along the residential streets within the University Park Estates neighborhood located southwest of the project open space site as a means of accessing the Home Depot project site. The proposed open space site is not expected to contribute significant traffic that would cut through the neighborhood. No on-site parking is provided for vehicles. For additional information about potential cut-through traffic, please refer to Section 4.11 of DEIR 2005.

Parking. Although the open space area is intended to be used primarily by bicyclists and pedestrians accessing the site on foot, the City's minimum parking requirement for a passive park use is two spaces per acre. Based on the project site plan, approximately two parking spaces would be required for the proposed open space site.

As permitted in the City of Long Beach Zoning Code (§21.41.222), the proposed Home Depot project site, located less than 550 feet from Channel View Park, will provide the required vehicular parking and staging areas for bicyclists wishing to access the greenway and open space area. The proposed open space site will be connected to/an extension of the existing Channel View Park. Therefore, there would be no impact related to parking capacity, and no mitigation would be required.

Congestion Management Program (CMP) Analysis. The CMP requires new development projects to analyze potential impacts on CMP monitoring locations. Based on the 2002 CMP for Los Angeles County, the following arterial monitoring stations are located within the proposed project area:

- PCH/7th Street
- PCH/2nd Street

Per the CMP Traffic Impact Analysis Guidelines, a traffic impact analysis must be conducted where

- the proposed project will add 50 or more trips at CMP arterial monitoring intersections during the a.m. and p.m. weekday peak hours, and where
- the proposed project will add 150 or more trips, in either direction, at CMP mainline monitoring locations during the a.m. or p.m. weekday peak hours.

Since the two CMP intersections are included as study area intersections for the proposed project, the impact analysis at these locations is discussed throughout Section 4.11 in DEIR 2005. Both CMP intersections operate at unsatisfactory levels of service (LOS) in the a.m. and p.m. peak hours during the cumulative baseline condition. However, the proposed project does not significantly impact the CMP intersections by 2 percent of the capacity (ICU $\geq$ 0.02) and the proposed open space would not generate additional traffic. Therefore, the proposed project is consistent with the requirements of the CMP and CMP-related mitigation would not be required.

Alternative Transportation. The project site at the intersection of Studebaker Road and Loynes Drive is currently serviced by the Orange County Transportation Agency's (OCTA) transit service, which includes bus stops (Routes 1 and 60) located along northbound and southbound Studebaker Road adjacent to the Studebaker Road/Loynes Drive intersection. These stops are delineated with a sign only; there are no bus turnouts. Long Beach Transit (LBT) does not currently provide service adjacent to the project site at the Studebaker Road/Loynes Drive intersection.

The proposed open space at the corner of 7th Street and Silvera Avenue is currently serviced by LBT and OCTA. LBT maintains a bus stop on 7th Street just east of Bellflower. OCTA and LBT maintain a bus stop near the Atherton Road/Studebaker Road intersection.

It is anticipated that the existing transit services within the project area would be able to accommodate the project-generated transit trips. Due to the low estimated patronage, neither OCTA nor LBT anticipate providing new bus routes and/or bus stops along Studebaker Road, Loynes Drive, or 7th Street adjacent to the project site. However, LBT indicated that it would review the area in the future and that additional transit service could be added.[1] The project's impact on transit services will be less than significant, and no mitigation is required.

Construction Traffic. Construction impacts are temporary during the period of construction, and the number of construction workers would vary depending on the specific construction activities over time. To reduce the impact of construction traffic and roadwork, implementation of a construction management plan would be required to minimize traffic impacts to the local circulation system in the area. With implementation of Mitigation Measure 4.11.1, construction traffic impacts associated with implementation of the project and the proposed open space site would be less than significant.

[1] Source: Personal communication. Dick Stillwell, Director of Services, Long Beach Transit. April 2004.

Levels of Service. The description of a City Park in the Institute of Engineers (ITE) *Trip Generation* manual, Seventh Edition (2003), is as follows: "City parks are owned and operated by a city. The city parks surveyed vary widely as to location, type and number of facilities, including boating or swimming facilities, ball fields, campsites and picnic facilities." The project proposes to provide landscaping (e.g., trees, plants, grass) and hardscape (i.e., sidewalks and benches) along the 1.37-acre open space area. As such, the proposed enhancements are not similar to the descriptions for a City Park in the ITE manual. Based on its size and function, this open space site does not meet the ITE Manual definition of a City Park and would not generate traffic.

Because the proposed open space at the intersection of 7th Street and Silvera would not generate additional traffic, the LOS at the study area intersections would not change during the weekday and weekend peak hours. Therefore, the proposed landscaped open space can be implemented without impacting the LOS at the adjacent intersections. As such, the landscaping of the 1.37-acre open space site would not change the results of the Long Beach Home Depot Traffic Impact Analysis.

Cumulative Traffic Impacts. To determine the 2006 plus project condition (i.e., cumulative plus project condition) traffic generated by the proposed project, cumulative projects and an ambient growth factor were added to existing traffic volumes at the study area intersections. As Table 4.11.F in DEIR 2005 indicates, five study area intersections are forecast to operate at an unacceptable LOS (LOS E or F) in the p.m. peak hour for both the 2006 conditions and the 2006 Plus Project Conditions. Three intersections are forecast to operate an unacceptable LOS in the a.m. peak-hour for both 2006 conditions and 2006 Plus Project Conditions. Implementation of the proposed project would cause a significant ICU increase of 0.02 to the following intersections during the weekday peak hour:

- Studebaker Road/SR-22 westbound ramps: increase in LOS F during the p.m. peak hour
- Studebaker Road/2nd Street: increase from LOS E to LOS F during the p.m. peak hour

The proposed project would cause a significant impact to the following intersections during the weekend peak hour:

- PCH/7th Street: increase in LOS E and ICU of 0.028
- PCH/2nd Street: increase in LOS F and ICU of 0.029
- Studebaker Road/2nd Street: increase in LOS E and ICU of 0.044

These impacts would not be worsened by the proposed open space site. Because the proposed open space at the intersection of 7th Street and Silvera would not generate additional traffic, the impacts described in DEIR 2005 remain unchanged.

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TABLES

6.0 OTHER CEQA TOPICS

6.1 SEAPORT MARINA/CUMULATIVE TRAFFIC ANALYSIS

The Traffic Impact Analysis (TIA) for the proposed project was prepared in April 2005. At the time of this analysis, the City identified two approved/pending projects (cumulative) within the project site: (1) 120 Studebaker Road, and (2) the Boeing Specific Plan. During the public review period on DEIR 2005 and the TIA, comments were raised by the public and City of Seal Beach regarding the cumulative projects analyzed in the TIA. The commentors requested that the cumulative analysis in the Home Depot TIA include the proposed Seaport Marina project as a cumulative project.

On August 18, 2003, Studebaker LB, LLC submitted an application for Conceptual Site Plan Review for the proposed Home Depot project. The Notice of Preparation (NOP) for the proposed Home Depot project was issued on March 19, 2004. The complete application for Conceptual Site Plan Review for the Seaport Marina project was submitted on July 29, 2005, and the NOP for the proposed Seaport Marina project was issued on May 16, 2005.

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15130, an EIR's evaluation of cumulative impacts may be based on a list of past, present, and probable future projects, including, if necessary, those projects outside the control of the Agency. Generally, projects that have progressed to the stage for which CEQA review has been initiated are treated as foreseeable probable future projects. An application for the proposed Seaport Marina project was submitted approximately 16 months after the NOP for the proposed Home Depot project was released, and the CEQA process for the Seaport Marina project was initiated approximately 14 months after the CEQA process for Home Depot was initiated. Therefore, the Seaport Marina project was correctly not included in the analysis in the Home Depot DEIR.

Furthermore, Section 15125 of the CEQA Guidelines states that "an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of preparation is published…" At the time the NOP for the Home Depot project was issued, an application for the Seaport Marina project had not yet been filed at the City. Therefore, this project was not included in the list of cumulative projects for the TIA. However, at the direction of City staff, LSA prepared a technical memorandum to address the traffic impacts with the addition of the Seaport Marina project to the cumulative condition analyzed in the Home Depot TIA. This analysis is included in Appendix A of this document. The same study area intersections from the Home Depot TIA were analyzed in this revised cumulative analysis. The purpose of the analysis of the Seaport Marina project is to assist in the response to comments efforts, and the additional analysis summarized below exceeds that which is required by CEQA.

Cumulative Analysis Includes Seaport Marina

To determine the cumulative traffic generated by the Seaport Marina project, LSA contacted the traffic consultant for the Seaport Marina project (Meyer, Mohaddes Associates [MMA]) to obtain

project traffic volumes generated from the project. See Appendix A of this document for additional information regarding methodology.

For the purposes of this focused cumulative traffic analysis, traffic generated by the proposed Home Depot project was added to the revised cumulative traffic volumes (above) at the study area intersections. LSA utilized the trip distribution and assignment for the previous Home Depot TIA for purposes of this analysis. The deficient study area intersections identified in the cumulative condition are also forecast to operate at unsatisfactory level of service (LOS) with the project. Implementation of the proposed project would cause an increase of 0.020 to the intersection capacity utilization (ICU) at five of the intersections, as described below.

- Studebaker Road/State Route 22 (SR-22) westbound ramps. ICU increase of 0.024 (LOS F) during the weekday p.m. peak hour.
- Studebaker Road/State Route 22 (SR-22) eastbound ramps. ICU increase of 0.029, from LOS D to LOS E, during the weekday p.m. peak hour.
- Studebaker Road/2nd Street. Increase in ICU of 0.043, from LOS E to LOS F, during the weekend midday peak hour.
- Pacific Coast Highway (PCH)/7th Street. ICU increase of 0.032 (LOS E) during the weekend midday peak hour.
- PCH/2nd Street. ICU increase of 0.029 (LOS F) during the weekend midday peak hour.

The intersections listed above were identified as impacted intersections in the previous Home Depot TIA, with the exception of Studebaker Road/SR-22 eastbound ramps. The proposed project causes a significant impact at this location (i.e., results in a reduced level of service from LOS D to LOS E and increases the ICU to greater than 0.020).

Improvements to offset these project impacts were identified in the Home Depot TIA, with the exception of the Studebaker Road/SR-22 eastbound ramps. Any improvements to the Studebaker Road/SR-22 eastbound ramps would require potential encroachment into the Los Cerritos Channel immediately adjacent and parallel to Studebaker Road. In addition, Caltrans has no plans to improve this facility. As such, there are no feasible improvements at this location that would mitigate the project's impact; as a result, the project would contribute a significant unavoidable impact at this intersection.

Transportation and Circulation impacts identified in DEIR 2005 as significant and unavoidable were:

- Studebaker Road/State Route 22 (SR-22) westbound ramps in the weekday p.m. peak hour
- PCH/7th Street in the weekend midday peak hour
- PCH/2nd Street in the weekend midday peak hour

The significant unavoidable impacts identified in DEIR 2005 and above in this document require a Statement of Overriding Considerations.

Study Conclusion

The addition of the Seaport Marina project traffic would contribute to a new deficient location in the cumulative baseline conditions at the intersection of PCH/Loynes Drive. This intersection was forecasted to operate at LOS D or better in the previous Home Depot TIA. The addition of the Seaport Marina project increased the LOS at this intersection to LOS E or worse. However, the addition of Home Depot traffic to this location will not trigger the City's significance criteria (i.e., an increase of less than 0.020).

With the implementation of the proposed Home Depot project, a new significant impact was identified at the Studebaker Road/SR-22 eastbound ramps (LOS D to LOS E). No feasible improvements at this location have been identified that would mitigate the project's impact; as a result, the project would contribute a significant unavoidable impact at this intersection.

Update to EIR

Based on the results of the traffic impact analysis, the proposed project would significantly impact four study area intersections in the cumulative scenario based on the City's performance criteria and as reported in the DEIR. Impacted intersections are (1) Studebaker Road/State Route (SR-22) westbound ramps; (2) Studebaker Road/2nd Street; (3) PCH/7th Street; and (4) PCH/2nd Street. With the additional cumulative analysis of Seaport Marina, a fifth impact is identified at the Studebaker Road/SR-22 eastbound ramps. This fifth impact is a new impact not previously identified in the Draft EIR.

The TIA found that converting the existing westbound right-turn lane into a through lane and constructing an exclusive westbound right-turn lane would mitigate the project's traffic impact at the intersection of Studebaker Road/2nd Street.

Changes to Project Design Features Related to Traffic Circulation

Project design features (PDFs) 1 through 8 from DEIR 2005 have been incorporated into Mitigation Measures 4.11.2 through 4.11.9 in order to ensure that they will be completed as presented with implementation of the project. PDF 9 has been deleted.

Mitigation Measures Related to Traffic Circulation

As described above, Mitigation Measures 4.11.2 through 4.11.9 have been amended/added to incorporate several PDFs from DEIR 2005.

4.11.1 Prior to the issuance of a grading permit, the project applicant shall, under the direction of the City of Long Beach Traffic Engineer, design and implement a construction area Traffic Management Plan. The plan shall be designed by a registered Traffic Engineer and shall address traffic control for any street closure, detour, or other disruption to traffic circulation and public transit routes. The plan shall identify the routes that construction vehicles will use to access the site, the hours of construction traffic, traffic controls and detours, off-site vehicle staging areas, and parking areas for the project. The plan shall also require project

contractors to keep all haul routes clean and free of debris including but not limited to gravel and dirt.

4.11.2 **Studebaker Road/2nd Street.** Prior to issuance of any Certificates of Occupancy, the applicant, to the satisfaction of the City of Long Beach Director of Public Works, shall convert the existing westbound right-turn lane into a through lane and shall construct an exclusive westbound right-turn lane with a raised island that allows a "free right turn" from westbound 2nd Street to northbound Studebaker Road into the newly striped third through lane, with reimbursement if possible, according to the Boeing Specific Plan's fair-share commitment.

4.11.3 **Studebaker Road/Loynes Drive.** Prior to issuance of any certificates of occupancy, the applicant, to the satisfaction of the City of Long Beach Director of Public Works, shall complete the following:

- Provide one westbound left-turn lane, one westbound through lane, and one westbound right-turn lane at the project driveway at the Studebaker Road/Loynes Drive intersection and two receiving lanes into the project site. In addition, a northbound right-turn lane and a southbound left-turn lane shall be constructed. The inside eastbound right-turn lane shall be converted to an eastbound through lane for vehicles entering the project site.
- Change the traffic signal phasing for the northbound and southbound left-turn movements at Studebaker Road/Loynes Drive to protected-permissive turn movements.
- Restripe northbound and southbound Studebaker Road (36 feet wide) between 2nd Street and the SR-22 eastbound ramps to provide three (12-foot-wide) through lanes. The third northbound through lane will terminate at the northbound right-turn lane at the SR-22 eastbound ramps. The third southbound through lane will terminate at the 2nd Street intersection. Any encroachment into State right-of-way will require review and approval by Caltrans.

4.11.4 Prior to issuance of any certificates of occupancy, the applicant, in conjunction with and upon approval by Caltrans and the City Public Works Director, install traffic signal interconnect along Studebaker Road from 2nd Street to the SR-22 westbound ramp signal. This will allow vehicles from 2nd Street to have progressive flow to the freeway on-ramp on Studebaker Road.

4.11.5 Prior to issuance of any certificates of occupancy, the applicant, in conjunction with and upon approval by Caltrans and the City Public Works Director, develop and implement new traffic signal coordination timing for Studebaker Road for both weekday and weekend traffic conditions. This will provide signal coordination utilizing the new interconnect described above.

4.11.6 Prior to issuance of any certificates of occupancy, the applicant, in conjunction with and upon approval by Caltrans and the City Public Works Director, develop and implement (with Caltrans) new traffic signal coordination timing along 2nd Street from Marina Drive to Studebaker Road using existing interconnect. This should reduce delay and queuing at PCH/2nd Street.

4.11.7 Prior to issuance of any certificates of occupancy, the applicant, in conjunction with and upon approval by Caltrans and the City Public Works Director, develop and implement (with Caltrans) new coordination timing along PCH between Studebaker Road and 7th Street for both weekday and weekend traffic conditions.

4.11.8 Prior to issuance of any certificates of occupancy, the applicant shall reconstruct the two traffic signals at Studebaker Road and SR-22/7th Street ramps in accordance with current traffic signal design standards, subject to the approval of the City Traffic Engineer and Caltrans.

4.11.9 Prior to issuance of any certificates of occupancy, the applicant shall upgrade all 8-inch traffic signal indications to 12-inch LED indications for the five intersections along 7th Street between and including East Campus Drive and Pacific Coast Highway.

6.2 AIR QUALITY

Updated Air Quality

The air quality analysis of carbon monoxide (CO) hotspots as contained in DEIR 2005 was updated to reflect the most up-to-date vehicular turning movement information. The noise analysis was similarly updated. However, there were no changes to the DEIR conclusions with regard to air and noise impacts as a result of this update. The updated air quality tables are included in Appendix C of this document. The information contained in the updated tables is consistent with the conclusions in DEIR 2005. There are no new impacts, and no additional mitigation measures are required.

Cumulative Air Quality

As described in Section 6.1, LSA prepared a technical memorandum (April 17, 2006) to address the traffic impacts with the addition of the Seaport Marina project to the cumulative condition analyzed in the Home Depot TIA. The updated cumulative traffic analysis was prepared at the direction of City staff and is included in Appendix A of this document. The same study area intersections from the Home Depot TIA were analyzed in this revised cumulative traffic analysis.

The CO hotspot analysis was updated to reflect the revised cumulative traffic analysis, and the results are summarized in Tables 6.2.A and 6.2.B. While the CO concentrations increase slightly for most intersections analyzed with the inclusion of Seaport Marina traffic, none increase sufficiently to cause an exceedance of an ambient air quality standard (AAQS). Therefore, there is no change to significance conclusions. The cumulative impacts discussion in DEIR 2005 stated:

> "Currently, the Basin is in nonattainment for CO, PM_{10}, and O_3. Construction of the proposed project, in conjunction with other planned developments within the cumulative study area, would contribute to the existing nonattainment status. Therefore, the proposed project would exacerbate nonattainment of air quality standards within the Basin and contribute to adverse cumulative air quality impacts."

The slight increase in the traffic volumes as described in the updated traffic analysis does not change the conclusions in DEIR 2005, and no changes are warranted to the above conclusion with regard to cumulative air quality impacts. There are no new impacts, and no additional mitigation measures are required.

Diesel Toxics Analysis

The following discussion of diesel toxics evaluates two issues: (1) the general health risks of air toxics and the current contribution of diesel trucks to those risks; and (2) the project's potential air toxics impact.

Determining how hazardous a substance is depends on many factors, including the amount of the substance in the air, how it enters the body, how long the exposure lasts, and what organs in the body are affected. One major way these substances enter the body is through inhalation of either gas or particulate. While many gases are harmful, very small particles penetrate deep into the lungs, contributing to a range of health problems. Exhaust from diesel engines is a major source of these airborne particles. California's Office of Environmental Health Hazard Assessment (OEHHA) has determined that long-term exposure to diesel exhaust particulates poses the highest cancer risk of any toxic air contaminant it has evaluated. Fortunately, improvements to diesel fuel and diesel engines have already reduced emissions of some of the contaminants, which, when fully implemented, will result in a 75 percent reduction in particle emissions from diesel-powered trucks and other equipment by 2010 (compared to 2000 levels) and an 85 percent reduction by 2020.

There are currently no federal project-level requirements for air toxics analysis, and CEQA only requires a consideration of the risks from toxics, with the South Coast Air Quality Management District (SCAQMD) providing the Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (March 2003) for guidance. The SCAQMD has established a maximum individual cancer risk significance threshold of 10 in 1 million (1.0×10^{-5}) (assuming the project will be constructed with best-available control technology for toxics [T-BACT] and a noncarcinogenic hazard index of 1.0).

A screening-level single pathway analysis of diesel exhaust from trucks operating as part of the project was performed, analyzing only the inhalation pathway. This technique was conducted as recommended in the OEHHA Air Toxic Hotspots Program Risk Assessment Guidelines (OEHHA, August 2003), Appendix D, Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Vehicles and by the California Air Resources Board (ARB) (HARP Model Documentation, Appendix K, Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Engines, ARB, Feb 2005). It consists of several steps including:

1. Determining the PM_{10} emission factor.
2. Determining the PM_{10} emission rate.
3. Determining the PM_{10} concentration at location(s) of interest.
4. Translating the PM_{10} concentration(s) to health risk values.
5. Comparing the health risk values to thresholds and determining significance.

Table 6.2.A: Weekday Cumulative CO[1] Concentrations[2] without and with the Project

Intersection	Receptor Distance to Road Centerline (Meters)	Project Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards[3]	
					1-Hr	8-Hr
PCH and 2nd St.	24 / 24	0.0 / 0.0	11.1 / 11.1	8.1 / 8.1	No	No
	24 / 24	0.0 / 0.0	10.9 / 10.9	8.0 / 8.0	No	No
	22 / 22	0.1 / 0.1	10.7 / 10.8	7.8 / 7.9	No	No
	21 / 21	0.0 / 0.0	10.4 / 10.4	7.6 / 7.6	No	No
PCH and Loynes Dr.	19 / 21	0.1 / 0.1	9.1 / 9.2	6.7 / 6.8	No	No
	17 / 17	0.0 / 0.0	9.1 / 9.1	6.7 / 6.7	No	No
	17 / 17	0.0 / 0.0	8.7 / 8.7	6.4 / 6.4	No	No
	17 / 17	0.1 / 0.1	8.6 / 8.7	6.3 / 6.4	No	No
PCH and Bellflower Blvd.	21 / 20	0.0 / 0.0	8.5 / 8.5	6.3 / 6.3	No	No
	20 / 18	0.1 / 0.1	8.3 / 8.4	6.1 / 6.2	No	No
	18 / 17	0.2 / 0.1	8.1 / 8.3	6.0 / 6.1	No	No
	17 / 17	0.1 / 0.1	8.1 / 8.2	6.0 / 6.1	No	No
PCH and 7th St.	21 / 21	0.0 / 0.0	12.3 / 12.3	8.9 / 8.9	No	No
	21 / 21	0.0 / 0.0	11.9 / 11.9	8.7 / 8.7	No	No
	17 / 17	0.0 / 0.0	11.8 / 11.8	8.6 / 8.6	No	No
	13 / 13	0.0 / 0.0	11.7 / 11.7	8.5 / 8.5	No	No
PCH and Studebaker Rd.	17 / 17	0.0 / 0.0	9.8 / 9.8	7.2 / 7.2	No	No
	17 / 17	0.0 / 0.0	9.5 / 9.5	7.0 / 7.0	No	No
	15 / 15	0.0 / 0.0	9.2 / 9.2	6.8 / 6.8	No	No
	15 / 15	0.0 / 0.0	9.1 / 9.1	6.7 / 6.7	No	No
Bixby Village and Loynes Dr.	14 / 14	0.1 / 0.1	6.6 / 6.7	4.9 / 5.0	No	No
	14 / 14	0.1 / 0.1	6.6 / 6.7	4.9 / 5.0	No	No
	14 / 14	0.1 / 0.0	6.5 / 6.6	4.9 / 4.9	No	No
	14 / 14	0.1 / 0.1	6.4 / 6.5	4.8 / 4.9	No	No
Studebaker Rd. and Loynes Dr.	17 / 17	0.1 / 0.0	9.9 / 10.0	7.3 / 7.3	No	No
	17 / 17	0.1 / 0.0	9.9 / 10.0	7.3 / 7.3	No	No
	17 / 17	0.1 / 0.1	9.6 / 9.7	7.0 / 7.1	No	No
	17 / 17	0.1 / 0.0	9.5 / 9.6	7.0 / 7.0	No	No
Studebaker Rd. and SR-22 EB Ramps	15 / 15	0.1 / 0.0	10.5 / 10.6	7.7 / 7.7	No	No
	14 / 14	0.1 / 0.0	10.2 / 10.3	7.5 / 7.5	No	No
	14 / 14	0.1 / 0.1	10.0 / 10.1	7.3 / 7.4	No	No
	14 / 14	0.1 / 0.0	9.9 / 10.0	7.3 / 7.3	No	No
Studebaker Rd. and SR-22 WB Ramps	15 / 15	0.1 / 0.1	9.4 / 9.5	6.9 / 7.0	No	No
	15 / 15	0.1 / 0.1	9.0 / 9.1	6.6 / 6.7	No	No
	14 / 14	0.1 / 0.1	8.7 / 8.8	6.4 / 6.5	No	No
	14 / 14	0.1 / 0.1	8.6 / 8.7	6.3 / 6.4	No	No
Studebaker Rd. and 2nd St.	17 / 17	0.1 / 0.1	10.8 / 10.9	7.9 / 8.0	No	No
	17 / 17	0.1 / 0.0	9.9 / 10.0	7.3 / 7.3	No	No
	14 / 14	0.1 / 0.0	9.9 / 10.0	7.3 / 7.3	No	No
	7 / 7	0.1 / 0.1	9.8 / 9.9	7.2 / 7.3	No	No
Studebaker Rd. and AES Plant Driveway	14 / 14	0.1 / 0.0	9.9 / 10.0	7.3 / 7.3	No	No
	14 / 14	0.1 / 0.1	9.8 / 9.9	7.2 / 7.3	No	No
	14 / 14	0.2 / 0.2	9.7 / 9.9	7.1 / 7.3	No	No
	12 / 12	0.2 / 0.1	9.5 / 9.7	7.0 / 7.1	No	No

Source: LSA Associates, Inc. May 2006

1 Tables 6.2.A and 6.2.B represent the updated cumulative analysis that includes the Seaport Marina project.

2 Includes ambient one-hour concentration of 5.4 ppm and ambient eight-hour concentration of 4.1 ppm. Measured at the 3648 N. Long Beach Blvd., Long Beach, CA, AQ Station (Los Angeles County).

3 State one-hour standard is 20 ppm and eight-hour standard is 9.0 ppm.

Table 6.2.B: Weekend Cumulative CO Concentrations[1] without and with the Project

Intersection	Receptor Distance to Road Centerline (Meters)	Project Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards[2]	
					1-Hr	8-Hr
PCH and 2nd St.	24 / 24	0.0 / 0.0	9.9 / 9.9	7.3 / 7.3	No	No
	24 / 24	0.1 / 0.1	9.8 / 9.9	7.2 / 7.3	No	No
	22 / 22	0.1 / 0.1	9.8 / 9.9	7.2 / 7.3	No	No
	21 / 21	0.0 / 0.0	9.8 / 9.8	7.2 / 7.2	No	No
PCH and Loynes Dr.	21 / 21	0.1 / 0.1	8.3 / 8.4	6.1 / 6.2	No	No
	19 / 19	0.1 / 0.1	8.3 / 8.4	6.1 / 6.2	No	No
	17 / 17	0.1 / 0.1	8.1 / 8.2	6.0 / 6.1	No	No
	17 / 17	0.0 / 0.0	8.1 / 8.1	6.0 / 6.0	No	No
PCH and Bellflower Blvd.	21 / 21	0.2 / 0.1	8.2 / 8.4	6.1 / 6.2	No	No
	20 / 20	0.2 / 0.1	7.9 / 8.1	5.9 / 6.0	No	No
	18 / 18	0.1 / 0.0	7.9 / 8.0	5.9 / 5.9	No	No
	17 / 17	0.1 / 0.0	7.9 / 8.0	5.9 / 5.9	No	No
PCH and 7th St.	21 / 21	0.1 / 0.1	10.3 / 10.4	7.5 / 7.6	No	No
	21 / 21	0.1 / 0.0	10.2 / 10.3	7.5 / 7.5	No	No
	17 / 17	0.1 / 0.0	10.2 / 10.3	7.5 / 7.5	No	No
	13 / 13	0.0 / 0.0	10.2 / 10.2	7.5 / 7.5	No	No
PCH and Studebaker Rd.	17 / 17	0.0 / 0.0	9.7 / 9.7	7.1 / 7.1	No	No
	17 / 17	-0.1 / -0.1	9.7 / 9.6	7.1 / 7.0	No	No
	15 / 15	-0.1 / 0.0	9.3 / 9.2	6.8 / 6.8	No	No
	15 / 15	-0.1 / -0.1	8.9 / 8.8	6.6 / 6.5	No	No
Bixby Village and Loynes Dr.	15 / 17	0.2 / 0.1	6.1 / 6.3	4.6 / 4.7	No	No
	14 / 15	0.2 / 0.1	6.1 / 6.3	4.6 / 4.7	No	No
	14 / 14	0.2 / 0.1	6.1 / 6.3	4.6 / 4.7	No	No
	14 / 14	0.2 / 0.1	6.1 / 6.3	4.6 / 4.7	No	No
Studebaker Rd. and Loynes Dr.	17 / 17	0.2 / 0.1	8.9 / 9.1	6.6 / 6.7	No	No
	17 / 17	0.3 / 0.2	8.8 / 9.1	6.5 / 6.7	No	No
	17 / 17	0.3 / 0.2	8.7 / 9.0	6.4 / 6.6	No	No
	17 / 15	0.4 / 0.3	8.6 / 9.0	6.3 / 6.6	No	No
Studebaker Rd. and SR-22 EB Ramps	15 / 15	0.5 / 0.3	9.1 / 9.6	6.7 / 7.0	No	No
	14 / 14	0.5 / 0.4	9.0 / 9.5	6.6 / 7.0	No	No
	14 / 14	0.5 / 0.3	8.9 / 9.4	6.6 / 6.9	No	No
	14 / 14	0.5 / 0.3	8.8 / 9.3	6.5 / 6.8	No	No
Studebaker Rd. and SR-22 WB Ramps	15 / 15	0.2 / 0.2	8.3 / 8.5	6.1 / 6.3	No	No
	15 / 15	0.2 / 0.1	7.9 / 8.1	5.9 / 6.0	No	No
	14 / 14	0.2 / 0.2	7.6 / 7.8	5.6 / 5.8	No	No
	14 / 14	0.2 / 0.1	7.5 / 7.7	5.6 / 5.7	No	No
Studebaker Rd. and 2nd St.	17 / 17	0.5 / 0.4	10.4 / 10.9	7.6 / 8.0	No	No
	17 / 17	0.3 / 0.2	9.8 / 10.1	7.2 / 7.4	No	No
	14 / 14	0.3 / 0.2	9.8 / 10.1	7.2 / 7.4	No	No
	7 / 7	0.2 / 0.2	9.6 / 9.8	7.0 / 7.2	No	No
Studebaker Rd. and AES Plant Driveway	14 / 14	0.3 / 0.2	9.3 / 9.6	6.8 / 7.0	No	No
	14 / 14	0.3 / 0.2	9.1 / 9.4	6.7 / 6.9	No	No
	14 / 14	0.3 / 0.2	9.0 / 9.3	6.6 / 6.8	No	No
	12 / 12	0.3 / 0.2	9.0 / 9.3	6.6 / 6.8	No	No

Source: LSA Associates, Inc. May 2006

1 Includes ambient one-hour concentration of 5.4 ppm and ambient eight-hour concentration of 4.1 ppm. Measured at the 3648 N. Long Beach Blvd., Long Beach, CA, AQ Station (Los Angeles County).

2 State one-hour standard is 20 ppm and eight-hour standard is 9.0 ppm.

The PM_{10} emission factor was determined by using the ARB model, EMFAC2002, to generate emission factors for diesel trucks both idling and operating on site. As shown in Table 6.2.C, an average factor was developed to more accurately model the average factor over the 70-year exposure period of the health risk analysis. Because the EMFAC2002 model only extends to 2040, it is assumed that vehicle emission factors will stay at that rate until 2076. This is a conservative assumption, as it is expected that the vehicle emission factors will continue to be reduced over time as they have for the last 50 years or more. It is assumed that the trucks operating on site would average 8 miles per hour (mph) overall. To model emissions while trucks are idling, the ARB-recommended technique of using the emission factor for 5 mph and converting to a stationary emission rate by multiplying by 5 (miles) and dividing by 60 (minutes per hour) was used.

Table 6.2.C: PM_{10} Emission Rates over 70 Years of Health Risk Analysis

	Light Heavy-Duty (LHD1)		Medium Heavy-Duty (MHD)		Heavy Heavy-Duty (HHD)	
	5 mph	**8 mph**	**5 mph**	**8 mph**	**5 mph**	**8 mph**
2007 mix[1]	0.139	0.120	0.802	0.692	0.755	0.651
2020 mix[1]	0.072	0.062	0.396	0.342	0.242	0.209
2030 mix[1]	0.052	0.045	0.312	0.269	0.180	0.155
2040 mix[1]	0.047	0.040	0.292	0.252	0.173	0.149
2040 only[2]	0.020	0.018	0.079	0.068	0.089	0.077
Average	**0.066**	**0.057**	**0.376**	**0.325**	**0.288**	**0.248**

Source: The ARB EMFAC2002 model.

Determining the PM_{10} emission rate started by determining how many project-related diesel trucks are used daily by the proposed Home Depot project. The traffic study for this project predicted a total weekday ADT of 5,783 and weekend ADT of 8,503. Multiplying the weekday ADT by five (weekdays per week), the weekend ADT by two (weekend days per week), and dividing the result by seven (days per week) gives an average daily rate of 6,560 vehicles. This ADT was first broken down into four categories, using the data in a study performed for the City of Fontana (*City of Fontana Truck Trip Generation Study*, August 2003), to characterize vehicle usage in warehouse-type projects. This study is widely used as a reference for traffic analyses of these kinds of projects. Within each of these categories, the ARB model URBEMIS2002 was used to determine what percentage of each is diesel. It is assumed that each truck idles for 1.5 minutes per trip to account for stopping at the entry gate, warming up the engine, and miscellaneous tasks. Table 6.2.D shows the derivation of the overall diesel exhaust emission rate. This analysis assumed that this emission rate is constant for 70 years.

To determine the PM_{10} concentration at location(s) of interest, an air dispersion model is used. This analysis was performed using the EPA-approved TSCREEN3 computer model. This model provides conservative estimates of concentrations, considering site and source geometry, source strength, distance to receptor, and building wake effects on plume distribution. The TSCREEN3 model was developed to provide an easy-to-use method of obtaining pollutant concentration estimates where upperbound estimates are required or where meteorological data are unavailable.

1 EMFAC2002 emission factors for the standard fleet mix of vehicles ranging from new to 45 years old.

2 EMFAC2002 emission factors for only model year 2040 vehicles.

Table 6.2.D: Diesel Truck Exhaust Emissions

Total Project ADT[1]	Vehicle Type	Fontana Fleet Percentage Breakdown[2]	Total Trips per Day	Percentage of Vehicles That Are Diesel[3]	Diesel Trucks per Day
6,560	passenger car	79.6	5,220	0.0%	0
	2-axle[4]	3.5	227	18.2%	41
	3-axle[4]	4.6	304	80.0%	243
	4+ axle[5]	12.3	809	88.9%	719

Truck Type	Diesel PM_{10} gm/mi (on site)[6]	Distance On Site (mi/trip)	Running Exhaust Diesel PM_{10} (gm/day)	Diesel Idle Exhaust gm/min (on site)	Idle Time (min/trip)	Idle Exhaust Diesel PM_{10} (gm/day)	Total Diesel Exhaust PM_{10} (gm/day)
2-axle	0.191	0.25	2.0	0.0184	1.5	1.1	3.1
3-axle	0.191	0.25	12	0.0184	1.5	7	18
4+ axle	0.248	0.25	45	0.0240	1.5	26	70
Total Project Site Emissions							**91**

Source: LSA Associates, Inc. 2006.
ADT = average daily traffic

Since no specifics on truck movement on site were available, for the purposes of this analysis all diesel truck exhaust was modeled as if it came from a single spot. This technique was used because it is not known how the trucks will travel on site and because it generates health-risk values that are more conservative than the reality of spreading the truck emissions over the site. The TSCREEN3 input parameters are shown in Table 6.2.E. Stack height and diameter were based on observations of many trucks and approximating typical dimensions. Exhaust temperature and velocity were taken from ARB guidance.[7]

Table 6.2.E: TSCREEN Input Parameters

Simple Terrain Inputs:		
Source Type	=	Point
Emission Rate (G/S)	=	1.0
Stack Height (M)	=	2.0
Stack Inside Diameter (M)	=	0.076

1 Traffic data from the project traffic study.
2 Data from the City of Fontana Truck Trip Generation Study, August 2003.
3 URBEMIS2002 fleet diesel percentages, based on warehouse-type land use.
4 Two- and three-axle trucks are assumed to be 50 percent light-heavy-duty (LHD1) trucks and 50 percent medium-heavy-duty (MHD) trucks.
5 4+ axle trucks are assumed to be heavy-heavy-duty (HHD) trucks.
6 EMFAC2002 emission factors from Table 6.2.C.
7 Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, Appendix VII, ARB, October 2000

Stack Exit Velocity (M/S)	=	45.4
Stack Gas Exit Temp. (ºK)	=	769
Ambient Air Temp. (ºK)	=	293
Receptor Height (M)	=	0
Urban/Rural Option	=	Urban

Source: LSA Associates, Inc. 2006.

Table 6.2.F shows the TSCREEN3 PM_{10} concentrations at a range of locations using the PM_{10} emission rate from Table 6.2.D.

Table 6.2.F: TSCREEN3 Modeling Results

Distance to Nearest Residence (m)	PM_{10} Concentrations ($\mu g/m^3$)	
	1-Hr	Annual
300	0.274	0.022
400	0.199	0.016
500	0.150	0.012
600	0.117	0.009
700	0.094	0.008
800	0.077	0.006
900	0.065	0.005
1000	0.056	0.004

Source: LSA Associates, Inc. 2006.

The PM_{10} concentrations are translated to the health risk values shown in Table 6.2.G using the OEHHA methodology as described in the following equations:

Inhalation cancer risk = (Cair * DBR * A * EF * ED * $1x10^{-6}$) / AT * Inhalation Cancer Potency Factor.

Where:

Cair	Concentration of PM_{10} in air		
DBR	271	Daily breathing rate	(L/kg-day)
A	1	Inhalation absorption factor	
EF	350	Exposure frequency	(days/yr)
ED	70	Exposure duration	(years)
AT	25,550	Avg. time period of exposure	(days)
Diesel PM_{10}	1.1	Inhalation Cancer Potency factor	$(mg/kg-d)^{-1}$

Source: OEHHA Guidelines, August 2003.

and

Inhalation chronic risk = Cair / Inhalation Chronic REL

Where the Inhalation Chronic REL = 5.0

Table 6.2.G: Proposed Project Health Risks

Distance to Nearest Residence (m)	Inhalation Cancer Risk (No. in One Million)	Inhalation Chronic Risk (Hazard Index)
300	6.3	0.004
400	4.6	0.003
500	3.4	0.002
600	2.7	0.002
700	2.1	0.002
800	1.8	0.001
900	1.5	0.001
1000	1.3	0.001
Thresholds	**10**	**1.0**

Source: LSA Associates, Inc. 2006.

For this proposed Home Depot project, the distance from the loading area to the nearest residences is approximately 530 meters while the distance from the property line to the same residences is 180 meters. Because this analysis examined exhaust from trucks idling while loading and unloading as well as traveling from Studebaker Road to the loading/unloading area, a halfway distance (approximately 355 meters) was chosen to represent the overall effect.

As Table 6.2.G shows, the inhalation health risk predicted at the nearest residences (approximately 1,175 feet or 355 meters away) using the very conservative screening analysis techniques described above results in between 4.6 and 6.3 in 1 million, under the 10 in 1 million threshold. Therefore, emissions from vehicular traffic associated with the proposed project do not create a significant adverse health risk.

Construction Health Risk Impacts. The only toxic air pollution emissions in any significant quantity associated with construction of the proposed project occur from large, heavy-duty diesel-powered equipment exhaust. While there will be other toxic substances in use on site, compliance with State and federal handling regulations controls emissions to below a level of significance. The OEHHA currently describes the health risk from diesel exhaust entirely in terms of the amount of PM_{10} that is emitted. Currently, the health risk associated with diesel exhaust PM_{10} is limited to carcinogenic and chronic effects; no short-term acute effect is recognized.

The construction period of the project lasts only a short time, relative to the length of time required for carcinogenic and chronic health impacts. The anticipated level of construction activity will, even on the most intense day (as shown in Table 6.2.H), emit no more than 9.4 lbs/day of diesel exhaust particulates. A comparison of this level of construction equipment usage with similarly sized commercial and industrial projects for which LSA has conducted screening health risk analyses such as the Eastpoint Business Park (LSA, November 2004) and Kline Ranch (LSA, March 2006) shows that potential impacts from air toxics associated with diesel trucks during short-term project construction would be less than significant.

Table 6.2.H: Emissions from Construction Equipment Exhaust—Demolition and Grading

Source	Hours or Miles per Day	Pollutants (lbs./day)				
		CO	ROC	NO_X	SO_X	PM_{10}
Demolition						
2 dozers	10 hours	72	3.6	25	1.8	2.8
1 loader	8 hours	4.6	1.8	15	1.5	1.4
1 crushing equip.	8 hours	5.4	1.2	13.6	1.144	1.12
1 water truck	15 miles	0.29	0.033	0.41	0.004	0.010
60 haul truck trips	30 miles each	35	3.9	50	0.53	1.3
20 worker trips	40 miles each	8.8	0.42	1.1	0.005	0.016
Total Demolition		**126**	**11**	**106**	**4.9**	**6.6**
Grading						
1 dozer	10 hours	36	1.8	13	0.90	1.4
2 scrapers	8 hours	20	4.3	61	7.4	6.6
1 excavator	8 hours	8.9	1.8	13.1	1.2	0.6
1 water truck	15 miles	0.29	0.033	0.41	0.004	0.010
40 haul truck trips	30 miles each	23	2.6	33	0.35	0.84
20 workers trips	40 miles each	8.8	0.42	1.1	0.005	0.016
Total Grading		**97**	**11**	**122**	**9.9**	**9.4**
SCAQMD Threshold		**550**	**75**	**100**	**150**	**150**

Source: LSA Associates, Inc., April 2004.

Mitigation Measures

There are no changes to the air quality mitigation measures as presented in DEIR 2005.

6.3 NOISE

Updated Noise

Traffic data used in the DEIR 2005 noise analysis does not match the traffic data in the TIA. The traffic study prepared for the DEIR concluded that the proposed project would generate 5,783 daily trips on weekdays and 8,503 trips on weekends. The noise analysis contained in DEIR 2005 was updated to reflect the most up-to-date trip generation information. The revised tables are included in Appendix D of this document. The information contained in the updated tables is consistent with the conclusions in DEIR 2005. There are no new impacts, and no additional mitigation measures are required.

Cumulative Traffic Noise

As described in Section 6.1, LSA has prepared a technical memorandum to address the traffic impacts with the addition of the Seaport Marina project to the cumulative condition analyzed in the Home Depot TIA. The updated cumulative traffic analysis was prepared at the direction of City staff and is

included in Appendix A of this document. The same study area intersections from the Home Depot TIA were analyzed in this revised cumulative traffic analysis.

The operational noise analysis was updated to reflect the revised cumulative traffic analysis, and the results are summarized in the tables in Appendix E. A project will normally have a significant effect on the environment related to noise if it will substantially increase the ambient noise levels for adjoining areas or conflict with the adopted environmental plans and goals of the community in which it is located. The applicable noise standards governing the project site are the criteria in the City's Noise Element of the General Plan and Municipal Code, as included in DEIR 2005. While the noise levels increase slightly for most intersections analyzed with the inclusion of Seaport Marina traffic, none increase sufficiently to cause a new exceedance of the noise thresholds of significance. Therefore, there is no change to significance conclusions, and traffic noise impacts for weekday and weekend conditions remain less than significant.

Construction Noise: Proposed Sewer Line

Off-site construction activities include the installation of an eight-inch sewer line paralleling the existing sewer in Vista Street. The jackhammers, backhoes, trucks, and cranes required to install the sewer line would generate noise levels up to 86 dBA L_{max} at a distance of 50 feet. The existing homes along Vista Street would be located at a distance of approximately 30 feet. At this distance the existing residences would be exposed to noise levels of up to 90 dBA L_{max}.

Construction activity noise generated between 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 9:00 a.m. and 6:00 p.m. on Saturday is exempt from the Noise Control Ordinance standards. Therefore, if construction is limited to the hours specified, noise generated during construction will not result in a significant impact.

Conclusion

The noise analysis contained in DEIR 2005 was updated to reflect the most recent traffic data, including the addition of Seaport Marina to the cumulative scenario. There are no changes to the operational noise impact conclusions as a result of this update. In addition, this document addressed the short-term noise effects of the installation of an eight-inch sewer line paralleling the existing sewer in Vista Street. The installation will result in short-term noise effects as described above; however, the pipe installation will be required to comply with the City's Noise Control Ordinance standards. Therefore, there are no changes to the DEIR conclusions with regard to short-term noise.

Mitigation Measures

There are no changes to the noise mitigation measures as presented in the DEIR.

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7.0 MITIGATION MONITORING AND REPORTING PROGRAM

7.1 MITIGATION MONITORING REQUIREMENTS

Public Resources Code Section 21081.6 (enacted by the passage of Assembly Bill 3180) mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.
- The lead agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based.
- A public agency shall provide the measures to mitigate or avoid significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.
- Prior to the close of the public review period for a draft environmental impact report or mitigated negative declaration, a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the lead agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a responsible agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

7.2 MITIGATION MONITORING PROCEDURES

The mitigation monitoring and reporting program has been prepared in compliance with Public Resources Code Section 21081.6. It describes the requirements and procedures to be followed by the City of Long Beach to ensure that all mitigation measures adopted as part of the proposed Home Depot project will be carried out as described in this EIR.

Table 7.A lists each of the mitigation measures specified in this EIR and identifies the party or parties responsible for implementation and monitoring of each measure.

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures		Responsible Party	Timing for Mitigation Measure
4.1 Aesthetics			
4.1.1	The preliminary lighting plan shall be finalized as part of subsequent refinements in the site master planning process. The plan shall be designed to prevent light spillage in excess of that which has been referenced and analyzed in this EIR. A qualified lighting engineer/consultant to the City of Long Beach Department of Planning and Building shall verify that the plan calls for energy-efficient luminaries that control light energy and for exterior lighting to be directed downward and away from adjacent streets and adjoining land uses in a manner designed to minimize off-site spillage. Prior to issuance of building permits, the lighting plan shall be reviewed and approved by a City of Long Beach Director of Planning and Building, demonstrating that project lighting is consistent with this EIR.	City of Long Beach Director of Planning and Building	Prior to issuance of building permits
4.1.2	Prior to issuance of certificates of occupancy, a City of Long Beach Building Official shall verify that the lighting plan restricts operational hours as follows: 100 percent illumination from dusk to close of commercial activities; 50 percent illumination from the close of commercial activities until one hour after close time; and only security-level lighting from one hour after closure until dawn.	City of Long Beach Building Official	Prior to issuance of certificates of occupancy
4.2 Air Quality			
4.2.1	The City of Long Beach shall ensure that the project complies with SCAQMD Rule 1166 with regard to the handling of potential VOC-contaminated soils during construction. Prior to issuance of building permits, the City of Long Beach Building Official shall verify that construction plans include a statement stipulating that the construction contractor shall be responsible for compliance with applicable SCAQMD Rules and Regulations.	City of Long Beach Building Official/ Construction Contractor	Verification: Prior to issuance of building permits Activity: Ongoing during grading or earth-clearing activities
4.2.2	The City of Long Beach shall ensure that the project complies with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with best-available control	City of Long Beach Building Official/	Verification: Prior to issuance of grading and building permits

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. The City of Long Beach Building Official shall ensure that notes are included on grading and construction plans and referenced in the Construction Contractor's Agreement stipulating that the construction contractor shall be responsible for compliance with SCAQMD Rules 402 and 403. Applicable Rule 403 measures include the following requirements: • Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more). • Water active sites at least twice daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.) • All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114 (freeboard means vertical space between the top of the load and top of the trailer). • Pave construction access roads at least 100 feet onto the site from the main road. • Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.	Construction Contractor	Activity: Ongoing during grading or construction activities
4.2.3	The City of Long Beach Building Official shall ensure that construction documents and the Construction Contractor's Agreement require use of dust suppression measures in the SCAQMD *CEQA Air Quality Handbook* during	City of Long Beach Building Official/	Verification: Prior to issuance of grading or building permits

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	grading and construction. The construction contractor shall be responsible for implementation of dust suppression measures. • Revegetate disturbed areas as quickly as possible. • All excavating and grading operations shall be suspended when wind speeds (as instantaneous gusts) exceed 25 mph. • All streets shall be swept once per day if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water). • Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash trucks and any equipment leaving the site each trip. • All on-site roads shall be paved as soon as feasible, watered periodically, or chemically stabilized. • The area disturbed by clearing, grading, earthmoving, or excavation operations shall be minimized at all times.	Construction Contractor	Activity: Ongoing during grading and construction activities
4.2.4	The construction contractor shall select the construction equipment used on site based on low-emission factors and high energy efficiency. Prior to issuance of grading and building permits, the City of Long Beach Building Official shall verify that grading and construction plans include a statement that all construction equipment will be tuned and maintained in accordance with manufacturers' specifications.	City of Long Beach Building Official/ Construction Contractor	Verification: Prior to issuance of grading and construction permits Activity: Ongoing during grading or construction activities
4.2.5	Prior to issuance of grading permits, the City of Long Beach Building Official shall verify that construction and grading plans include a statement that the construction contractor shall utilize electric- or diesel-powered equipment in lieu of gasoline-powered engines where feasible.	City of Long Beach Building Official/ Construction Contractor	Verification: Prior to issuance of grading permits Activity: Ongoing during grading or construction activities
4.2.6	Prior to issuance of grading and building permits, the City of Long Beach Building Official shall verify that grading and construction plans include a statement that work crews will shut off equipment when not in use. During	City of Long Beach Building Official/	Verification: Prior to issuance of grading and building permits

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	smog season (May through October), the overall length of the construction period will be extended, thereby decreasing the size of the area prepared each day, to minimize vehicles and equipment operating at the same time.	Construction Contractor	Activity: Ongoing during grading or construction activities
4.2.7	Prior to issuance of grading permits, the City of Long Beach Building Official shall verify that construction and grading plans include a statement stipulating that the construction contractor shall time construction activities so as to not interfere with peak-hour traffic and minimize obstruction of through-traffic lanes adjacent to the site; if necessary, a flagperson shall be retained to maintain safety adjacent to existing roadways.	City of Long Beach Building Official/ Construction Contractor	Verification: Prior to issuance of grading permits Activity: Ongoing during grading or construction activities
4.2.8	Prior to issuance of grading permits, the City of Long Beach Building Official shall verify that construction and grading plans include a statement stipulating that the construction contractor shall support and encourage ridesharing and transit incentives for the construction crew.	City of Long Beach Building Official/ Construction Contractor	Verification: Prior to issuance of grading permits Activity: Ongoing during grading or construction activities
4.2.9	The City of Long Beach shall ensure that the project complies with Title 24 of the California Code of Regulations established by the Energy Commission regarding energy conservation standards. During Plan Check, the City of Long Beach Building Official shall verify that the following measures are incorporated into project building plans: • Trees will be planted to provide shade and shadow to buildings • Energy-efficient parking lot lights, such as low-pressure sodium or metal halide, will be used • Solar or low-emission water heaters shall be used with combined space/water heater units where feasible • Double-paned glass or window treatment for energy conservation shall be used in all exterior windows where feasible • Buildings shall be oriented north/south where feasible	City of Long Beach Building Official/ Construction Contractor	During Plan Check

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
4.3 Biological Resources		
4.3.1 Prior to commencement of demolition or grading activities, the construction contractor shall install protective barriers (e.g., snow or silt fencing) between the project site and the adjacent water supply channels and along both banks of the Los Cerritos Channel north of the Loynes Drive bridge. Prior to issuance of demolition permits, the City of Long Beach Environmental Officer shall verify that a qualified biologist has been retained by the City of Long Beach to supervise the installation of the barriers and ensure that the barriers are installed in the proper location and are clearly visible to equipment operators and other construction personnel. The barriers shall be a bright color (e.g., fluorescent orange) to ensure clear visibility. No construction activity shall occur beyond the limits marked by the barriers, and the construction contractor shall ensure that no construction debris, trash, or other material passes beyond the barriers. The City-retained biologist shall monitor the site on a weekly basis throughout project construction and file written reports on the condition of the barriers to the City of Long Beach Environmental Officer on a monthly basis. The cost of the biologist shall be reimbursed by the applicant.	City of Long Beach Environmental Officer	Verification: Prior to issuance of any demolition permits Activity: Ongoing during demolition, grading, and construction activities
4.4 Cultural Resources		
4.4.1 In conjunction with the submittal of applications for rough grading permits for the proposed project, the City of Long Beach Director of Planning and Building shall verify that a paleontologist who is listed on the County of Los Angeles list of certified paleontologists has been retained and will be on site during all rough grading and other significant ground-disturbing activities in paleontologically sensitive sediments. In the event that fossil resources are noted within the project area, construction in the vicinity of the find will be halted until the discovery can be evaluated. If the discovery is determined to be important, the project proponent shall initiate a paleontological recovery program to collect the fossil specimens and all relevant lithologic and locality information about the specimen. This may include the collection and the washing and picking of up to 6,000 pounds per locality of mass samples to recover small invertebrate and	City of Long Beach Director of Planning and Building	Verification: Prior to issuance of grading permits Activity: Ongoing during grading or earth-clearing activities

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	vertebrate fossils. The results of the fossil recovery program will be documented in a technical report that will include an itemized inventory of specimens. Specimens recovered during grading activity shall be prepared to a point of identification and permanent preservation. All recovered fossils shall be placed within a museum repository that is capable of accepting the recovered fossils and that has a permanent retrievable storage. The project proponent shall be responsible for all costs associated with this recovery program and report preparation.		
4.4.2	If human remains are encountered, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made a determination of the origin and disposition of the remains pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of the human remains and items associated with Native American burials.	City of Long Beach Director of Planning and Building/ Construction Contractor	Triggered if human remains are found on the project site; the Orange County Coroner must be notified immediately
4.4.3	In conjunction with the submittal of applications for rough grading permits, the Director, Department of Planning and Building, shall verify that a Los Angeles County certified archaeologist has been retained, shall be present at the pregrading conference and shall establish procedures for temporarily halting or redirecting work if unrecorded archaeological resources are discovered during grading to permit the sampling, identification, and evaluation of archaeological materials as appropriate. The cultural resource management program will include resource monitoring during project grading of archaeologically sensitive sediments to ensure that unidentified cultural resources are not affected by the proposed undertaking. If archaeological materials are identified during	City of Long Beach Director of Planning and Building	Verification: Prior to issuance of grading permits Activity: Ongoing during grading or earth-clearing activities

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
construction, standard professional archaeological practices shall be initiated to characterize the resources and mitigate any impacts to those resources. Included within this program will be the development of a curation agreement for the permanent care of materials collected from the project. This agreement would be negotiated with a suitable repository.		
4.5 Geology and Soils		
4.5.1 Prior to issuance of building permits, the City of Long Beach Building Official (or designee) and the City of Long Beach Director of Public Works are required to review and approve final design plans to ensure that earthquake-resistant design has been incorporated into final site drawings in accordance with the most current California Building Code and the recommended seismic design parameters of the Structural Engineers Association of California. Ultimate site seismic design acceleration shall be determined by the project structural engineer during the project design phase.	City of Long Beach Building Official/City of Long Beach Director of Public Works	Prior to issuance of building permits
4.5.2 A detailed geotechnical investigation of the site shall be conducted prior to the project design phase. This investigation shall evaluate liquefaction potential, lateral spreading hazards, and soil expansiveness and shall determine appropriate design consistent with the most current California Building Code. A corrosion engineer shall design measures for corrosion protection. Site-specific final design evaluation and grading plan review shall be performed by the project geotechnical consultant prior to the start of grading to verify that recommendations developed during the geotechnical design process are appropriately incorporated in the project plan. Design and grading construction shall be performed in accordance with the requirements of the California Building Code applicable at the time of grading, appropriate local grading regulations, and the recommendations of the project geotechnical consultant as summarized in a final report, subject to review by the City of Long Beach Building Official prior to issuance of grading permits.	City of Long Beach Building Official	Prior to issuance of grading permits

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
4.5.3 Site preparation (removal of existing facilities, excavation, subgrade preparation, placement and compaction of fill, foundation preparation, floor slab preparation, positive surface gradient preparation, and pavement of other areas) shall be conducted consistent with the recommendations of the design-level detailed geotechnical investigation summarized in a final report, subject to review and approval by a City of Long Beach Building Official prior to issuance of grading permits. The project geotechnical engineer shall observe all excavations, subgrade preparation, and fill activities and shall conduct soils testing as necessary, consistent with local, State, and federal regulations.	City of Long Beach Building Official	Prior to issuance of grading permits
4.6 Hazards and Hazardous Materials		
4.6.1 Prior to project approval, the project applicant shall enter into a Consent Agreement with DTSC for remediation of the project site consistent with the Scope of Work for an RCRA RFI.	City of Log Beach Department of Planning and Building; California Department of Toxic Substances Control	Prior to project approval
4.6.2 Prior to issuance of a grading permit, the project applicant shall provide evidence to the City that DTSC has issued a closure status for the project site and that no land use restrictions would prevent the site from being used for commercial/retail purposes.	City of Log Beach Department of Planning and Building; California Department of Toxic Substances Control	Prior to issuance of any grading permits

Mitigation Measures		Responsible Party	Timing for Mitigation Measure
4.6.3	Prior to issuance of any demolition permits, the project applicant shall submit an application to the City of Long Beach Fire Department for approval to remove Tanks Nos. 1–4 and 6 and associated pipeline conveyance systems from the property. The application package shall include documentation of approval of the removal process by AES Alamitos and Pacific Energy. The City of Long Beach Fire Department shall review the application for compliance with local, State, and federal requirements with tank-handling procedures including sampling and disposal of tank contents, sampling of subsurface soils, and transport and disposal of tanks and soils/liquids. The City of Long Beach Fire Department and DTSC shall oversee and monitor the operation in accordance with local, State, and federal requirements.	City of Long Beach Fire Chief	Prior to issuance of any demolition permits
4.6.4	Prior to issuance of any demolition permits, predemolition surveys for ACMs and LBPs (including sampling and analysis of all suspected building materials) and inspections for PCB-containing electrical fixtures shall be performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e.: ASTM E 1527-00, and 40 CFR, Subchapter R, Toxic Substances Control Act [TSCA], Part 716). All identified ACMs, LBPs, and PCB-containing electrical fixtures shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763). Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., SCAQMD) and to provide safety to workers and the adjacent community. The project applicant shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the City of Long Beach Health Department showing that abatement of any ACMs, LBPs, or PCB-containing electrical fixtures identified in these structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agency(ies) (40 CFR, Subchapter R,	City of Long Beach Health Department	Prior to issuance of any demolition permit

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	TSCA, Parts 716, 745, 761, 763, and 795 and CCR Title 8, Article 2.6). An Operating & Maintenance Plan (O&M) shall be prepared for any ACM, LBP, or PCB-containing fixtures to remain in place and would be reviewed and approved by the City Health Department.		
4.6.5	Prior to issuance of any demolition permits, the project applicant shall submit an Emergency Action Plan to the City of Long Beach Fire Department for review and approval. The plan shall include documentation of review and approval by Pacific Energy. The plan shall be consistent with local, State, and federal regulations and shall provide detailed procedures in the event of a hazardous substance leak or spill from on-site facilities, including Tank No. 5 and associated equipment.	City of Long Beach Fire Department	Prior to issuance of any demolition permits
4.6.6	Prior to issuance of a grading permit, the project site shall be remediated in accordance with the scope of work for an RCRA RFI. DTSC shall oversee and approve all phases of the investigation including the Current Conditions Report, RCRA RFI Workplan, RCRA RFI Report, Health and Safety Plan. Soils and groundwater shall be tested for VOCs, SVOCs, PAHs, metals, asbestos, and PCBs in accordance with the DTSC-approved workplan. Soil and groundwater removal, transport, and disposal shall be conducted in accordance with local, State and federal regulations; documentation shall be provided to DTSC. All remediation activity shall be completed to the satisfaction of DTSC, as well as RWQCB and CUPA as applicable.	California Department of Toxic Substances Control; Regional Water Quality Control Board (RWQCB); and Long Beach CUPA, as applicable	Prior to issuance of a grading permit
4.6.7	After rough grading and prior to building construction and utility installation, a detailed methane soil gas investigation workplan shall be prepared by the project applicant and submitted to the City of Long Beach Fire Department for review and approval. The methane soil gas investigation shall be performed in accordance with local industry standards. The results shall be presented in a formal report that includes recommendations to mitigate potential hazards from methane, if required. The report shall be reviewed and approved by the City of Long Beach Fire Department. Based on the results of this detailed investigation, additional mitigation design may be necessary, including providing	City of Long Beach Fire Department	After rough grading and prior to building construction and utility installation

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	conventional vapor barriers and venting systems beneath buildings and confined spaces. Methane mitigation design shall be approved by the City of Long Beach Fire Department.		
4.6.8	Prior to issuance of a grading permit, the project applicant shall submit a Soil and Air Monitoring Program and associated Health and Safety Plan to the City of Long Beach Planning and Building Department and the SCAQMD for review and approval. The program shall be consistent with local, State, and federal regulations and shall encompass all soil-disturbance activities. The Health and Safety Plan shall include the following components: • A summary of all potential risks to construction workers, monitoring programs, maximum exposure limits for all site chemicals, and emergency procedures • The identification of a site health and safety officer • Methods of contact, phone number, office location, and responsibilities of the site health and safety officer • Specification that the site health and safety officer will be contacted immediately by the construction contractor should any potentially toxic chemical be detected above the exposure limits or if evidence of soil contamination is encountered during site preparation and construction • Specification that DTSC will be notified if evidence of soil contamination is encountered • Specification that DTSC will be notified if contaminated groundwater is encountered during excavation activities • Specification that an on-site monitor will be present to perform monitoring and/or soil and air sampling during grading, trenching, or cut or fill operations	City of Long Beach Planning and Building Department and the SCAQMD	Prior to issuance of a grading permit

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	The Health and Safety Plan shall be provided to all contractors on site. The Health and Safety Plan is required to be amended as needed if different site conditions are encountered by the site health and safety officer.		
4.6.9	Prior to application for a business license and/or certificate of occupancy, the project applicant shall submit a Business Plan including a Hazardous Materials Release Response Plan and Inventory to the Long Beach CUPA for approval and permit. The Business Plan shall include a description of emergency response procedures and coordination with AGS with respect to alarms and public address sytems.	Long Beach CUPA	Prior to application for a business license and/or certificate of occupancy
4.6.10	Prior to issuance of certificates of occupancy, the City of Long Beach Health Department and the Long Beach CUPA shall review the existing Business Emergency Plan, Hazardous Materials Release Response Plan and Inventory, and the Risk Management Plan for the AES Alamitos Plant and shall determine whether additional measures/revisions are necessary based on proposed project implementation, consistent with the California Health and Safety Code Section 25500, et seq. The City of Long Beach Police Department shall review the plans to determine whether security for the plant, tanks, and distribution system is in compliance with pertinent regulations.	City of Long Beach Health Department, the Long Beach CUPA, City of Long Beach Police Department	Prior to issuance of certificates of occupancy
4.6.11	Prior to application for a business license and/or certificate of occupancy, the project applicant shall submit an Emergency Response and Evacuation Employee Training Program to the Long Beach CUPA for review and approval. The business owner shall conduct drills as required by CUPA and shall submit training documentation as part of the annual review of the Business Plan	Long Beach CUPA	Prior to application for a business license and/or certificate of occupancy
4.6.12	Prior to issuance of certificates of occupancy, the applicant shall submit the updated Hazardous Materials Release Response Plan and Inventory for the Pacific Energy tanks and distribution system to the Long Beach CUPA for review. The CUPA shall determine whether revisions are necessary due to proposed project implementation. The City of Long Beach Fire and Police Departments shall review and approve the proposed project plans, including the pipeline relocation for adequate emergency access and egress procedures.	Long Beach CUPA, City of Long Beach Fire Department, City of Long Beach Police Department	Prior to issuance of certificates of occupancy

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
4.7 Hydrology and Water Quality		
4.7.1 Prior to issuance of a grading permit, the City of Long Beach shall ensure that construction plans for the project include features meeting the applicable construction activity BMPs and erosion and sediment control BMPs published in the *California Stormwater BMP Handbook—Construction Activity* or equivalent. The construction contractor shall submit a Storm Water Pollution Prevention Plan (SWPPP) to the City that includes the BMP types listed in the handbook or equivalent. The SWPPP shall be prepared by a civil or environmental engineer and will be reviewed and approved by the City Building Official prior to the issuance of any grading or building permits. The SWPPP shall reduce the discharge of pollutants to the maximum extent practicable using BMPs, control techniques and systems, design and engineering methods, and such other provisions as appropriate. A copy of the SWPPP shall be kept at the project site. The construction contractor shall be responsible for performing and documenting the application of BMPs identified in the SWPPP. The construction contractor shall inspect BMP facilities before and after every rainfall event predicted to produce observable runoff and at 24-hour intervals during extended rainfall events, except on days when no ongoing site activity takes place. Prestorm activities will include inspection of the major storm drain grate inlets and examination of other on-site surface flow channels and swales, including the removal of any debris that blocks the flow path. Poststorm activities will include inspection of the grate inlets for evidence of unpermitted discharges. The construction contractor shall implement corrective actions specified by the City of Long Beach Building Official, as necessary, at the direction of the City of Long Beach Director of Public Works. Inspection records and compliance certification reports shall be submitted to the City of Long Beach Director of Public Works on a monthly basis and shall be maintained for a period of three years. Inspections shall be scheduled monthly	City of Long Beach Director of Public Works/City of Long Beach Building Official	Prior to issuance of a grading permit

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	during the dry season and weekly during the wet season for the duration of project construction or until all lots and common areas are landscaped.		
4.7.2	During demolition, grading, and construction, the construction contractor shall ensure that the project complies with the requirements of the State General Construction Activity NPDES Permit. Prior to issuance of demolition and grading permits, the construction contractor shall demonstrate to the City of Long Beach that coverage has been obtained under the State General Construction Activity NPDES Permit by providing a copy of the NOI submitted to the SWRCB and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) number or other proof of filing to the City of Long Beach Building Official.	City of Long Beach Building Official/ Construction Contractor	Prior to issuance of demolition or grading permits
4.7.3	Prior to commencement of grading activities, the construction contractor shall determine whether dewatering of groundwater will be necessary during construction of the project. Any dewatering will require compliance with the State General Permit for discharges to land with a low threat to water quality or an individual permit from the Los Angeles RWQCB, consistent with NPDES requirements. Once it receives and reviews the NOI, the RWQCB will decide which permit is applicable and whether sampling is required. A copy of the permit shall be kept at the project site, available for City and/or RWQCB review upon request.	City of Long Beach Director of Planning and Building/ Construction Contractor	Prior to commencement of grading activities
4.7.4	Prior to issuance of a building permit, the City of Long Beach Director of Public Works shall review and approve a project SUSMP. The project SUSMP shall identify all of the nonstructural and structural BMPs that will be implemented as part of the project in order to reduce impacts to water quality to the maximum extent practicable by addressing typical land use pollutants and pollutants that have impaired Los Cerritos Channel and Reach 1 of the San Gabriel River.	City of Long Beach Director of Public Works	Prior to issuance of a building permit
4.7.5	Prior to issuance of a building permit, the City of Long Beach shall, under the direction of the City of Long Beach Director of Public Works, approve a plan to ensure ongoing maintenance for permanent BMPs. This plan shall include a	City of Long Beach Director of Public Works	Prior to approval of a Final Parcel Map

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	statement from the applicant accepting responsibility for all Structural and Treatment Control BMP maintenance until the time the property is transferred. All future transfers of the property to a private or public owner shall have conditions requiring the recipient to assume responsibility for the maintenance of any structural or Treatment Control BMP. The condition of transfer shall include a provision requiring the property owner to conduct a maintenance inspection at least once a year and retain proof of inspection. In addition, educational materials indicating locations of storm water facilities and how maintenance can be performed shall accompany first deed transfers.		
4.7.6	Prior to issuance of a building permit, the City of Long Beach Director of Public Works/City Engineer shall review and approve a final Hydrology Plan. The Hydrology Plan shall include any on-site structures or modifications of existing drainage facilities necessary to accommodate increased runoff resulting from the proposed project and shall indicate project contributions to the regional storm water drainage system. The Hydrology Plan shall show all structural BMPs, consistent with the project SUSMP.	City of Long Beach Director of Public Works/City Engineer	Prior to approval of a Final Parcel Map
4.8 Land Use			
4.8.1	City of Long Beach Planning Commission approval of the proposed project shall include approval of a Local Coastal Development Permit to allow construction and operation of a retail commercial development in the local coastal zone, a Conditional Use Permit to allow retail trade in Subarea 19 of the PD-1 zoning district (in accordance with the General Industrial Land Use Standards), and Standards Variances for those project-specific design features provided in Chapter 3.0, Project Description. The City of Long Beach Director of Planning and Building shall issue building permits consistent with the Planning Commission's Site Plan Review, Conditional Use Permit, Local Coastal Development Permit, and Standards Variance approvals.	City of Long Beach Director of Planning and Building	Upon approval of the project by the City of Long Beach Planning Commission

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
4.9 Noise		
4.9.1 At the time of Plan Check, the City of Long Beach Zoning Administrator shall verify that project plans include a six-foot concrete block or Plexiglas wall between Studebaker Road and any project outdoor eating areas (adjacent to Studebaker Road).	City of Long Beach Zoning Administrator	At the time of Plan Check
4.9.2 Construction will be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and on federal holidays; and 9:00 a.m. to 6:00 p.m. on Saturdays. In accordance with the City of Long Beach's standards, no construction activities are permitted outside of these hours, and no construction is permitted on Sundays without a special work permit. At the time of plan check, prior to issuance of grading and building permits, the City of Long Beach Zoning Administrator shall verify that construction hour limitations are noted on building and grading plans.	City of Long Beach Zoning Administrator	Prior to issuance of grading and building permits
4.10 Public Services and Utilities		
4.10.1 A Solid Waste Management Plan for the proposed project shall be developed and submitted to the City of Long Beach Environmental Services Bureau for review and approval prior to issuance of grading permits. The plan shall identify methods to promote recycling and reuse of construction materials as well as safe disposal consistent with the policies and programs outlined by the City of Long Beach. The plan shall identify methods of incorporating source reduction and recycling techniques into project construction and operation in compliance with State and local requirements such as those described in Chapter 14 of the California Code of Regulations and AB 939.	City of Long Beach Environmental Services Bureau	Prior to issuance of grading permits
4.10.2 Prior to issuance of building permits, the City of Long Beach Director of Planning and Building shall verify that adequate storage space for the collection and loading of recyclable materials has been included in the design of buildings as well as waste collection points throughout the project site to encourage recycling.	City of Long Beach Director of Planning and Building	Prior to issuance of building permits
4.10.3 The project applicant shall submit a Security Plan for the review and approval	City of Long	Verification: Prior to issuance of

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	of the City of Long Beach Chief of Police prior to the issuance of any building permits. The Security Plan shall incorporate CPTED principles and other crime-prevention features that shall include, but not be limited to, the following: • Interior and exterior security lighting • Alarm systems • Locking doors for all employee locations • Use of vines and other landscaping to discourage graffiti and unauthorized access • Bonded security guards • "No Loitering" signs posted at various locations throughout the project site • Surveillance cameras for each business and all on-site parking areas • Surveillance cameras located on-site that are capable of thoroughly monitoring Channel View Park, the Vista Street/Loynes Drive intersection, and the Vista/Silvera intersection All surveillance cameras shall continuously monitor all on-site and off-site locations on a 24-hour basis, and all surveillance camera video recording equipment shall have a minimum continuous two-week capacity to the satisfaction of the City of Long Beach Chief of Police. The City of Long Beach Director of Planning and Building shall verify inclusion of all required physical public safety improvements prior to issuance of any building permits. All physical requirements in the approved Security Plan shall be installed and fully operational prior to issuance of any Certificate of Occupancy.	Beach Chief of Police/City of Long Beach Director of Planning and Building	building permits Activity: Prior to issuance of a Certificate of Occupancy and through the life of the project
4.11 Transportation and Circulation			
4.11.1	Prior to the issuance of a grading permit, the project applicant shall, under the direction of the City of Long Beach Traffic Engineer, design and implement a	City of Long Beach Traffic	Prior to issuance of grading permits

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	construction area Traffic Management Plan. The plan shall be designed by a registered Traffic Engineer and shall address traffic control for any street closure, detour, or other disruption to traffic circulation and public transit routes. The plan shall identify the routes that construction vehicles will use to access the site, the hours of construction traffic, traffic controls and detours, off-site vehicle staging areas, and parking areas for the project. The plan shall also require project contractors to keep all haul routes clean and free of debris including but not limited to gravel and dirt.	Engineer	
4.11.2	**Studebaker Road/2nd Street.** Prior to issuance of any Certificates of Occupancy, the applicant, to the satisfaction of the City of Long Beach Director of Public Works, shall convert the existing westbound right-turn lane into a through lane and shall construct an exclusive westbound right-turn lane with a raised island that allows a "free right turn" from westbound 2nd Street to northbound Studebaker Road into the newly striped third through lane, with reimbursement if possible, according to the Boeing Specific Plan's fair-share commitment.	City of Long Beach Director of Public Works	Prior to issuance of any Certificates of Occupancy
4.11.3	**Studebaker Road/Loynes Drive.** Prior to issuance of any certificates of occupancy, the applicant, to the satisfaction of the City of Long Beach Director of Public Works, shall complete the following: • Provide one westbound left-turn lane, one westbound through lane, and one westbound right-turn lane at the project driveway at the Studebaker Road/Loynes Drive intersection and two receiving lanes into the project site. In addition, a northbound right-turn lane and a southbound left-turn lane shall be constructed. The inside eastbound right-turn lane shall be converted to an eastbound through lane for vehicles entering the project site. • Change the traffic signal phasing for the northbound and southbound left-turn movements at Studebaker Road/Loynes Drive to protected-permissive	City of Long Beach Director of Public Works	Prior to issuance of any Certificates of Occupancy

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
	turn movements. • Restripe northbound and southbound Studebaker Road (36 feet wide) between 2nd Street and the SR-22 eastbound ramps to provide three (12-foot-wide) through lanes. The third northbound through lane will terminate at the northbound right-turn lane at the SR-22 eastbound ramps. The third southbound through lane will terminate at the 2nd Street intersection. Any encroachment into State right-of-way will require review and approval by Caltrans.		
4.11.4	Prior to issuance of any certificates of occupancy, the applicant, in conjunction with and upon approval by Caltrans and the City Public Works Director, install traffic signal interconnect along Studebaker Road from 2nd Street to the SR-22 westbound ramp signal. This will allow vehicles from 2nd Street to have progressive flow to the freeway on-ramp on Studebaker Road.	City of Long Beach Public Works Director and Caltrans	Prior to issuance of any certificates of occupancy.
4.11.5	Prior to issuance of any certificates of occupancy, the applicant, in conjunction with and upon approval by Caltrans and the City Public Works Director, develop and implement new traffic signal coordination timing for Studebaker Road for both weekday and weekend traffic conditions. This will provide signal coordination utilizing the new interconnect described above.	City of Long Beach Public Works Director and Caltrans	Prior to issuance of any certificates of occupancy.
4.11.6	Prior to issuance of any certificates of occupancy, the applicant, in conjunction with and upon approval by Caltrans and the City Public Works Director, develop and implement (with Caltrans) new traffic signal coordination timing along 2nd Street from Marina Drive to Studebaker Road using existing interconnect. This should reduce delay and queuing at PCH/2nd Street.	City of Long Beach Public Works Director and Caltrans	Prior to issuance of any certificates of occupancy.
4.11.7	Prior to issuance of any certificates of occupancy, the applicant, in conjunction with and upon approval by Caltrans and the City Public Works Director, develop and implement (with Caltrans) new coordination timing along PCH between Studebaker Road and 7th Street for both weekday and weekend traffic conditions	City of Long Beach Public Works Director and Caltrans	Prior to issuance of any certificates of occupancy.

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
4.11.8 Prior to issuance of any certificates of occupancy, the applicant shall reconstruct the two traffic signals at Studebaker Road and SR-22/7th Street ramps in accordance with current traffic signal design standards, subject to the approval of the City Traffic Engineer and Caltrans.	City of Long Beach Traffic Engineer and Caltrans	Prior to issuance of any certificates of occupancy.
.**4.11.9** Prior to issuance of any certificates of occupancy, the applicant shall upgrade all 8-inch traffic signal indications to 12-inch LED indications for the five intersections along 7th Street between and including East Campus Drive and Pacific Coast Highway.	City of Long Beach Traffic Engineer	Prior to issuance of any certificates of occupancy.

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8.0 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Section 15126.2(B) of the State CEQA Guidelines requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. The Executive Summary of this document contains a detailed summary table that identifies the project's environmental impacts, proposed mitigation measures, and the level of impact significance after mitigation. The following is a summary of the impacts that are considered significant and unavoidable after all mitigation is applied.

8.1 INVENTORY OF SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Air Quality

Construction Air Quality Impacts. Air quality impacts would occur during construction of the proposed project from soil disturbance and equipment exhaust. Major sources of emissions during demolition, grading, and site preparation include exhaust emissions from construction vehicles and equipment and fugitive dust generated by construction vehicles and equipment traveling over exposed surfaces and demolition activities, as well as by soil disturbances from grading and backfilling. Even with implementation of mitigation measures and compliance with applicable rules and regulations, the following construction impacts related to air quality remain significant and adverse:

- Construction equipment/vehicle emissions during demolition and grading periods would exceed the SCAQMD established daily and quarterly thresholds for NO_X even with implementation of Mitigation Measures 4.2.1 through 4.2.8. Emissions of other criteria pollutants would be below the thresholds.
- During peak grading days, total construction emissions of NO_X and PM_{10} would exceed the daily thresholds established by the SCAQMD even with implementation of Mitigation Measures 4.2.1 through 4.2.8. During demolition and regular grading days, NO_X emissions would exceed the thresholds as well. Emissions of other criteria pollutants would be below the thresholds.

Long-Term Regional Air Quality Impacts. Long-term air emission impacts are those associated with stationary sources and mobile sources involving any project-related change. The proposed commercial use would result in both stationary and mobile sources. The stationary source emissions from the commercial uses would come from the consumption of natural gas. Emissions from the project-related mobile sources would exceed CO, ROC, and NO_X thresholds based on emission factors for 2004. Emissions of SO_2 and PM_{10} would not exceed their respective thresholds. Therefore, project-related long-term air quality impacts would be significant. Because most of the project's air quality impacts are generated by vehicle emissions, implementation of Mitigation Measure 4.2.9 will not substantially reduce any long-term air quality impacts of the project. Therefore, long-term impacts remain significant and adverse.

Cumulative Air Quality Impacts. The project would contribute criteria pollutants to the area during temporary project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction may result in substantial short-term increases in air pollutants. This would be a contribution to short-term cumulative air quality impacts.

The project would also result in increases in long-term operational emissions. The project would contribute cumulatively to local and regional air quality degradation.

The Basin is in nonattainment for CO, PM_{10}, and O_3 at the present time. Construction of the proposed project, in conjunction with other planned developments within the cumulative study area, would contribute to the existing nonattainment status. Therefore, the proposed project would exacerbate nonattainment of air quality standards within the Basin and contribute to adverse cumulative air quality impacts.

Public Services and Utilities

Solid Waste. There is insufficient permitted capacity within the existing solid waste system serving Los Angeles County to provide for long-term nonhazardous solid waste disposal needs (Class III landfills). Although the project's contribution is not the sole cause of the shortfall, when coupled with solid waste generated by future projects, the impact to solid waste disposal capacity is significant. Mitigation Measures 4.10.1 and 4.10.2 will assist the City in its effort to meet waste-reduction goals. Project impacts related to compliance with federal, State, and local statutes and regulations for solid waste will be reduced to a less than significant level. The project may, however, result in a potentially significant cumulative impact to solid waste disposal capacity in the County of Los Angeles. Implementation of the above-mentioned mitigation measures will facilitate recycling of solid waste generated by project site land uses to the extent feasible. Due to the existing deficiency in long-term waste disposal capacity at waste disposal facilities in Los Angeles County, cumulative project impacts associated with solid waste disposal capacity at Class III landfills will remain significant and unavoidable.

Traffic and Circulation

The following project intersection impacts cannot be mitigated. Therefore, these project impacts remain significant and adverse. A Statement of Overriding Considerations is required.

Weekday Peak Hour

- **Studebaker Road/SR-22 westbound ramps:** Improvements to Studebaker Road/SR-22 westbound ramps would require potential encroachment into the Los Cerritos Channel immediately adjacent and parallel to Studebaker Road. In addition, Caltrans has no plans to improve this facility. As such, there are no feasible improvements at this location that would mitigate the project's impact. Therefore, this intersection would experience a significant unavoidable impact during the weekday period.

Weekend Midday Peak Hour

- **PCH/7th Street:** Due to right-of-way constraints along 7th Street, there are no feasible improvements at this location that would mitigate the project's impact. Therefore, the proposed project creates a significant unavoidable impact at this location during the weekend period.
- **PCH/2nd Street:** Due to right-of-way constraints at this intersection, there are no feasible improvements that would mitigate the project's impact. Therefore, the proposed project creates a significant unavoidable impact at this location during the weekend period.

Cumulative Traffic and Circulation

The following intersection impact would occur when the Seaport Marina project is added to the cumulative analysis. A Statement of Overriding Considerations is required.

Weekday Peak Hour

- **Studebaker Road/SR-22 eastbound ramps.** Caltrans has no plans to improve this facility. As such, there are no feasible improvements at this location that would mitigate the cumulative impact. Therefore, this intersection would experience a significant unavoidable impact during the weekday period.

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9.0 ORGANIZATIONS AND PERSONS CONSULTED

CITY OF LONG BEACH

Angela Reynolds, Environmental Planning Officer, Planning and Development Department

Craig Chalfant, Planner

Ed Norris, Traffic Engineer

Dave Roseman, Traffic Engineer

Robert Villanueva, Division Engineer, Long Beach Water Department

Mike Zukoski, Civil Engineer, Long Beach Energy Department

Alan Patalano, Deputy Chief, Long Beach Fire Department

Mike Weber, Detective, Long Beach Police Department

Susanne Steiner, Detective, Long Beach Police Department

Jeff Benedict, R.E.H.S., M.P.A., Manager, Environmental Health, Long Beach Health and Human Services

Linda Kolinski, Hazardous Waste Emergency Response Planner, Department of Health and Human Services.

CITY OF SEAL BEACH

John Unrath, Chairman, Environmental Quality Control Board

COUNTY OF LOS ANGELES

Rod Kubomoto, Assistance Deputy Direct, Department of Public Works

David R. Lenninger, Chief, Forestry Division, Fire Department

ORANGE COUNTY TRANSPORTATION AGENCY

Gordon Robinson, Senior Transportation Analyst, Operations Planning and Scheduling

GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT

Jack Hazelrigg, Ph.D., District Manager

SANITATION DISTRICTS OF LOS ANGELES COUNTY

John D. Kilgore, Supervising Engineer, Planning Section

Ruth I. Frazen, Engineering Technician, Planning and Property Management Section

CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 7

Cheryl Powell, CEQA Branch Chief

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Steve Smith, Ph.D., Program Supervisor, CEQA Section, Planning, Rule Development, and Area Sources

UNITED STATES DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE

Karen A. Goebel, Assistance Field Supervisor

CALIFORNIA DEPARTMENT OF FISH AND GAME

Donald Chadwick, Habitat Conservation Supervisor

CALIFORNIA DEPARTMENT OF CONSERVATION

Paul Frost, Associate Oil and Gas Engineer

SOUTHERN CALIFORNIA EDISON

Mark Pearson, Field Support Planner

LONG BEACH TRANSIT

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11.0 REFERENCES

AES Alamitos, LLC.
2001 Final Environmental Impact Report for AES Alamitos, LLC - Selective Catalytic Reduction Installation at Alamitos Generating Station Project. Certified March 9. www.aqmd.gov/CEQA/documents/2001/nonaqmd/aes/final/aes_f.html Environmental Impact Report.

Boeing Space and Communications Group
2002 Specific Plan Traffic Impact Report.

Bolt, Beranek & Newman
1987 Noise Control for Buildings and Manufacturing Plants.

California Burrowing Owl Consortium
1993 *Burrowing Owl Survey Protocol and Mitigation Guidelines.*

California Department of Toxic Substance Control
2005 Notification of Resource Conservation and Recovery Act (RCRA) Requirements for Closure and Corrective Action at the Former Southern California Edison Generating Stations. August 22, 2005.

California Department of Toxic Substance Control
n.d. RCRA Facility Investigation (RFI)Model Scope of Work.

California Department of Water Resources, Southern District
1961 *Bulletin No. 104 Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A, Ground Water Geology*. June.

California Integrated Waste Management Board
2004 Waste Disposal Rates for Business Types.

California Native Plant Society
Electronic Inventory of Rare and Endangered Vascular Plants of California (6th ed., electronic version 1.5.2).

California Regional Water Quality Control Board, Los Angeles Region 4
1995 Water Quality Control Plan for the Los Angeles Basin. February.

California State Department of Health Services
1976 Office of Noise Control.

1999 Assembly Bill 411.

California Stormwater Quality Association, http://www.cabmphandbooks.com
2003 *California Storm Water BMP Handbook— Construction Activity.*

2003 *California Storm Water BMP Handbooks— New Development and Redevelopment.*

2003 *California Storm Water BMP Handbooks— Municipal.*

2003 *California Storm Water BMP Handbooks— Industrial/Commercial.*

City of Long Beach
1977 Southeast Area Development and Improvement Plan (SEADIP) Final Environmental Impact Report.

1975 Noise Element of the General Plan.

1988 Municipal Code.

Zoning Code, Chapter 21.37.

ESCI EnviroServices, Inc.
2004 EPA Risk Management Program, California Accidental Release Prevention Program, Selective Catalytic Reduction (SCR) Systems, RMP & CalARP Resubmittal for AES Alamitos, LLC. June 2004.

Federal Highway Administration
1977 Highway Traffic Noise Prediction Model, FHWA RD-77-108.

GeoSyntec Consultants
2005 Phase I Environmental Site Assessment, Two Vacant Parcels Associated with the Proposed Home Depot Development.

Geotechnical Professionals Inc.
2003 *Report of Geotechnical Investigation—Proposed Home Depot.*

Harris, Cyril M.
1991 Handbook of Acoustical Measurements and Noise Control.

Houghton Mifflin Company
2000 The American Heritage Dictionary of the English Language, Fourth Edition.

Institute of Transportation Engineers (ITE)
2003 *Trip Generation* manual, 7th Edition, Volume 3.

Jefferson, G. T.
1991a A Catalogue of Late Quaternary Vertebrates from California: Part One. Non-marine Lower Vertebrate and Avian Taxa. Natural History Museum of Los Angeles County Technical Reports Number 5, Los Angeles.

1991b A Catalogue of Late Quaternary Vertebrates from California: Part Two. Mammals. Natural History Museum of Los Angeles County Technical Reports Number 7, Los Angeles.

Long Beach Water Department
1994 Domestic Water Demand Study, Boyle Engineering.

2002 Water Quality Report.

Los Angeles County
2000 *Standard Urban Storm Water Mitigation Plan* (SUSMP).

LSA Associates, Inc.
2004 Eastpoint Business Park Air Quality Analysis.

2005 Traffic Impact Analysis.

2005 Air Quality Analysis.

2006 Revised Cumulative Traffic Analysis.

2006 Kline Ranch Air Quality Analysis.

Mackenbach, David
2004 Property Owner. Personal Communication. January 27.

Madison Engineering
2004a Preliminary Hydrology Study Home Depot Site, ID No. WC0398 at Studebaker Road & Loynes Drive, Long Beach, CA, February.

2004b Home Depot at Studebaker Road & Loynes Drive, Long Beach, CA, Design Drawings.

Maghy, Steve
2004 Environmental Manager, AES. Personal Communication. June 1.

Miller, W. E.
1971 Pleistocene Vertebrates of the Los Angeles Basin and Vicinity (Exclusive of Rancho La Brea), Los Angeles County Museum of Natural History Bulletin, Science: No. 10.

Mission Geoscience, Inc.
2004 *Engineering Geologic and Geohazards Assessment Report.*

2004 *Phase I Environmental Site Assessment with Preliminary Methane Soil Gas & Air Sampling, Long Beach Home Depot Site, 400 Studebaker Road, Long Beach, California*. December 20, 2004. Appendix B.

Orange County
2003 Drainage Area Management Plan (DAMP), Exhibit 7.II: Model Water Quality Management Plan.

Patalano, Alan
2004 Deputy Chief, Long Beach Fire Department. Personal Commmunication. August 2.

State of California
1973 California Occupational Safety and Health Act of 1973 (State OSH Act) (8 CCR secs. 330–8618).

Steiner, Susanne
2004 Detective, Long Beach Police Department. Personal Communication. April 12.

URS Corporation, Inc.
2004 *Water Quality Impact Analysis Report, Home Depot, Long Beach, California.*

URS Corporation, Inc.
2002 Risk Management Program, SCR Systems and Aqueous Ammonia Storage Tanks. October 2002.

U.S. Environmental Protection Agency
1978 Protective Noise Levels: Condensed Version of EPA Levels Document.

2004 Air quality data 1999–2003, http://www.epa.gov/.

U. S. Geological Survey
1896a *Downey* 15' Quadrangle. Denver, Colorado.

1925 *Long Beach* 6' Quadrangle. Reprinted in 1932, Denver, Colorado.

1942 *Downey* 15' Quadrangle. Denver, Colorado.

1964 *Los Alamitos* 7.5' Quadrangle. Topography and photogrammetric methods from aerial photographs taken in 1963. Topography from planetable surveys in 1964. Photorevised in 1972 from aerial photographs taken in 1972. Denver, Colorado.

Wallace, William J.
1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11(3). Reprinted in *The California Indians: A Source Book*, edited by R. Heizer and M. Whipple, pp. 186–201. Berkeley: University of California Press. Second Edition, 1971.

1978 Post Pleistocene Archaeology 9000–2000 B.C. In *California*, edited by R. Heizer, pp. 25–36. Handbook of North American Indians, Vol. 8, W. Sturtevant, general editor. Washington, D. C.: Smithsonian Institution.

Western Regional Climate Center
www.wrcc.dri.edu.